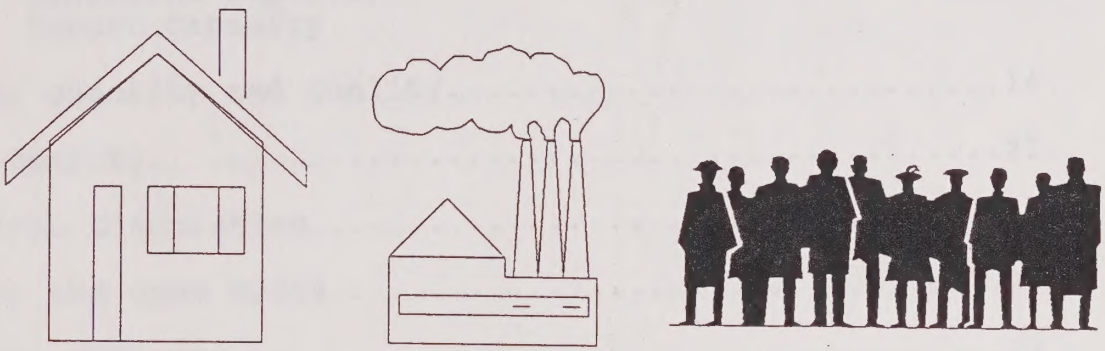
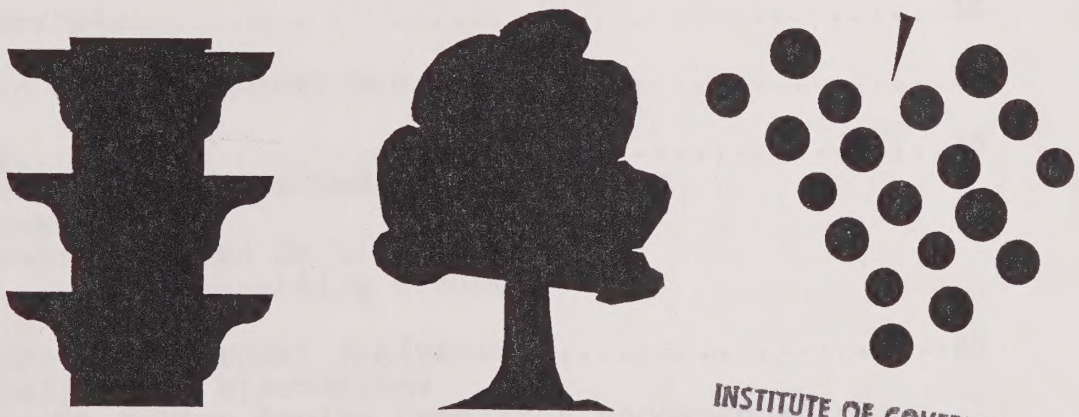
LIVERMORE STATE OF THE CITY REPORT





BY THE LIVERMORE PLANNING DEPARTMENT
FOR THE GROWTH REVIEW COMMITTEE
OCTOBER 1989

1990 STATE OF THE CITY REPORT

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INTRODUCTION

The General Plan requires that as a part of developing each Three Year Housing Implementation Program, the City shall consider among other issues; infrastructure requirements and limitations as they relate to the proposed growth, service requirements including schools, safety and administrative services, environmental impacts and constraints, the low and moderate housing needs of the City, and the current job growth rate in Livermore. The Growth Review Committee (GRC) is charged with reviewing that data and the City's growth policies. Based on that review, the GRC has made recommendations on the growth rate and on targeted categories for the next Three Year Program. To support its recommendations, the Committee has made key findings on each of the areas it studied.

GROWTH REVIEW COMMITTEE MEMBERS

Pam Souza, Chairperson
Michael Love, Vice Chairperson
Robert Ficken Jr.
Ed Lafranchi
Cheri Jo Patenaude
Tom Reitter

Staff

Robert Brown, Director of Planning
Marc Roberts, Assistant Planner, GRC staff liaison

Prepared October, 1989, by the Livermore Planning Department

EXECUTIVE SUMMARY

KEY RECOMMENDATIONS

1. The General Plan allows for the growth rate to be set within a range from 1.5% to 3.5% annually. The stated growth rate (excluding exempt projects) for the 1988-1990 program was 3.5% annually. The technical data and evidence presented to and reviewed by the Growth Review Committee produced no compelling reasons to modify the current 3.5% growth rate.

   However, the Council may wish to consider a growth rate for the 1991-1993 period of less than 3.5% for the following reasons:
   a. There may be longer term infrastructure constraints relating to wastewater (sewer) export capacity that argue that a slightly slower growth rate during the 1991-1993 program would provide more time and flexibility for solving the export capacity issue;
   b. Because over 2,850 units from the 1988-1990 program are approved but not yet constructed, the Committee is unsure what the ultimate impacts of the 1988-1990 program will be on the City's overall public service and infrastructure systems, and;
   c. Even with revisions to the HIP exemption policy, exempt projects should continue to add the equivalent of between one-third and one half of one percent to the annual growth rate during the 1991-1993 program.

2. The targeted categories for the 1991-1993 Three Year Program should be as follows:
   a. The emphasized category for move up housing should continue. The Committee finds that a strong need for this type of housing continues, and the GRC recommends that the City continue sending the message that the Community is interested in move up housing.
   b. A reserved category for lower cost housing, including senior housing, first time buyer housing, and other lower income housing, should be created for the 1991-1993 program. The category should consist of between ten and fifteen percent of the available allocations. The category should be cumulative for the three year period.
   c. The emphasized category for lands owned by public agencies should continue. The emphasized category last year encouraged developers to submit strong proposals for the School District properties. Continuing the category will encourage that trend to continue.
   d. The non-cumulative, 50 unit per year, reserved category for lands within the College Avenue Assessment district should continue, if the district is formed before the

application deadline in any of the three (1991, 1992, 1993) competitions.

e. The non-cumulative, 10 unit per year special reserved category for very small projects should continue. This will allow very small projects that do not meet the technical requirements of the HIP exemption to seek allocations for up to 10 units if they can show that they would be uncompetitive in the overall HIP competition due to limitations inherent to the site or factors beyond the applicant's control.

3. The overall evaluation format of the program should follow the format used in the 1988-1990 program with the following modification;
   a. An optional environmental review period should be added to the evaluation program. The environmental review deadline would be approximately 60 days prior to the project submittal deadline and would provide adequate time to prepare environmental documents for those projects that need them.
   b. The definition of eligibility for the custom lot category should remain essentially unchanged. However, the Design Review Committee should be given more discretion when reviewing custom lot homes to ensure that they exemplify the highest quality of residential design as well as consistency with the approved design guidelines for the project.

4. The 10 unit or less exempt category should be modified to require that:
   a. the project be bounded on at least three sides by existing streets or existing development, and;
   b. the project not under-build the density for a site.

This option would require that the project must propose more units than the next lower General Plan designation would allow. Small vacant adjacent parcels would be eligible for the exemption as long as they met the rest of the criteria and the potential total number of exempt units did not exceed ten.

5. The borrowing mechanism allows up to 1.5% a year to be borrowed from the next three year program. The ability to borrow up to 1.5% severely limits flexibility during the following program and should be used with extreme caution.

6. The City Council should modify Part III, Section F2(c), Medium and Long Range Allocation, Part (a), of the General Plan that requires that 20% of all new housing should be low income. This section should be modified to be consistent with the recommended targeting for this period and to allow the City to determine the appropriate distribution of housing types based on the needs of the current Three Year Program.

KEY FINDINGS

1. A range of between 72 and 1,417 units will be available for the 1991-1993 HIP. This corresponds to a growth rate range of 1.5% to 3.5% annually and deducts previous approvals.

2. The exempt units for 1988 added the equivalent of .7% to the growth rate for an effective growth rate of 4.2% (3.5% + 0.7%). The 1989 exempt unit approvals and applications to date would add approximately 1.8% to the 1989 growth rate for an effective growth rate of 5.3% (3.5% + 1.8%) if all of the pending applications were approved.

3. Sufficient sewer treatment and export capacity exists to service any growth rate within the 1.5% - 3.5% range for the next three year period if expansions are completed on time. After the Phase 2 sewer treatment capacity expansion is completed in spring 1992, the treatment capacity will match export capacity. Both capacities will be exceeded in 1995 for an effective growth rate of 5.0%, in 1996 for a 4.0% growth rate, in 1997 for a 3.5% rate, in 1999 for a 3.0% rate, in 2000 for a 2.5% rate, in 2003 for a 2.0% rate and 2008 for a 1.5% growth rate. The effective growth rate is the sum of the stated growth rate and the exempt units for the period.

4. The General Plan requires that any capacity added to the sewer treatment plant above the 5.0MGD level be allocated in the following way: not less than 50% for non residential, not less than 10% for low income housing, and the remainder for other housing. Since the current flow rate through the treatment plant is 5.0MGD, this requirement applies to all current approvals. The effect of this regulation would be to require that at least 20% of all housing approvals should be low income in order to comply with this requirement. Therefore either targeting of low income housing should take place during the coming three year period, or if that policy is no longer appropriate, the General Plan should be amended.

5. A sufficient supply of treated water exists to service any growth rate within the 1.5% - 3.5% range permitted by the General Plan for the next three years and until at least the turn of the century. However, the growth rates of Livermore, Pleasanton and Dublin will affect the amount of groundwater that will be used during months of peak demand and during dry years.

6. The Livermore area continues to exceed State and Federal Air Quality standards for concentration of ozone. The number of days exceeding State and Federal standards have remained more or less constant over the last several years in this area. There is no current data available delineating what

portion of pollutants is produced locally verses what portion is blown in from other sources. However, BAAQMD is beginning a two year macro scale computer modeling program that will result in a much better and more quantified understanding of this issue.

7. No systematic data currently exists on traffic circulation. The GRC continues to recommend that a system of annual traffic counts be initiated at key intersections throughout the City.

8. Based on LARPD standards, the City has enough Neighborhood and Special Use Parks, but needs one additional Regional Park and two additional Community parks. The development process continues to provide enough Neighborhood and Special Use Parks, but the City needs to be vigilant to identify opportunities to acquire larger parcels of land that could be used for a Community Park north of I-580.

9. Portola Avenue elementary school is the most seriously impacted school in the system. Current projections show that adjustment of school boundary lines will be necessary even if no more projects are approved in that area. Christensen elementary school is scheduled to be converted into a dual 4-5, 6-8 school and ultimately into a middle school. In addition, the school district is in the process of acquiring an elementary school site on Scenic Avenue. If these actions are completed on time during the early 1990's, no school capacity problems are anticipated north of I-580. East Avenue and Junction Avenue Middle School capacities will also be exceeded without the conversion of Christensen. Both high schools are significantly below capacity.

10. Livermore has below average per capita cost for police service, fewer personnel per 1,000 population, a lower reported crime rate and above average crime clearance rates. Reported serious crimes have remained stable over the last several years. Based on this overall pattern of stability, it appears that the growth rate has not had a significant impact on police services.

11. Currently no systematic statistical data is available on fire and emergency medical responses. The City's Insurance Service Organization rating, which measures the ability of the department to protect commercial property within this jurisdiction, is four on a ten point scale with one being the best. The goal of the Fire Chief would be to eventually enhance the rating to two. To maintain current service levels, the only residential area of the City that will need additional fire department resources in the near future is Planning Area A, (north of I-580 east and north of Springtown). An additional station in the area would help ensure that second and third unit response time goals could be met.

12. A total of 453,000 square feet of industrial space was absorbed during the first two quarters of 1989. Based on an assumption of two employees per 1,000 square feet, that translates into approximately 900 employees, for an annual employment growth of 1,800. On average there are approximately 1.5 employees living in each household in Livermore. Therefore, it would take approximately 1,200 housing units a year to match employment growth with housing growth.

13. A total of 716 Low Income housing units and 248 Moderate Income housing units currently exist or are approved within the City. In addition, approximately 385 housing vouchers and Section 8 certificates have been issued which can be used for any rental unit within the City and essentially convert those market rate units into Low Income Units. During the last Three Year Program 41 Low Income units and 34 Moderate Income units were approved. This compares to 116 Low Income units and 220 Moderate Income units approved during the previous three year period. In order to meet ABAG "fair share" goals for the 1990-1995 period, an additional 559 Very Low Income housing units, 340 Low Income units and 499 Moderate Income units are needed.

14. In general, Livermore has a greater concentration of both new and resale homes in the less than $200,000 ranges and a smaller percentage of both new and resale homes in the $200,000 and up ranges than either Dublin or Pleasanton.

15. During the 1988-1990 Three Year Program, 29 projects were approved for a total of 3,000 units. A total of 1,815 units were approved in the emphasized category, (homes of at least 1,900 square feet on lots of at least 7,500 square feet). An estimated total of 1,940 of the 3,000 units will be four bedrooms or larger. This means that the vast majority of new housing produced for the next several years in Livermore will be in the $200,000 to $250,000 and the greater than $250,000 ranges. (1988 dollars)

16. Significant borrowing from the 1991-1993 program took place during the 1989 and 1990 programs. A total of 903 units were used from a theoretical maximum of 975 units available to borrow.

17. As of October 24, 1989, a total of 532 residential units have been applied for under the HIP ten unit or less exemption. Of these, 141 were approved in 1988, 217 have been approved so far in 1989, 30 have been denied and 144 have been applied for but not yet considered.

18. Approximately half of the projects processed under the HIP exemption were larger than 10 units, that is, they combined several parcels to create a larger project. The largest exempt project applied for was a 40 unit subdivision.

19. The HIP growth management system is a significant improvement over the RDP system it replaced. The application processing worked smoothly and on schedule. Each year, the allocations were granted approximately 100 days after the submittal deadlines.

20. The subjective evaluation process of the HIP has worked well. Unlike the RDP, there was significant agreement between the evaluations of Planning Department staff, the Design Review Committee, the Planning Commission, and the City Council.

21. Based on the approvals during the 1988-1990 Program, it appears that all unit types and project sizes were able to compete effectively under the HIP. A substantial portion of the period's allocations were granted to emphasized projects, but this was a direct goal of the process rather than an unintended side effect.

22. Evaluation of the Custom Lot Category caused difficulty for all groups that reviewed them, particularly the Design Review Committee. The evaluation groups had difficulty comparing projects that included architectural plans with those that did not include plans.

GROWTH RATE

TABLE 1 ALLOCATIONS AT VARIOUS GROWTH RATES

1.	Population as of January 1, 1989 (State Department of Finance Estimate)		56,820	
2.	Housing units completed during 1989 (Building Department Records)	1,040		
3.	Average persons per dwelling unit (State Department of Finance Estimates)	2.8		
4.	Population added during 1989 (line 2 multiplied by line 3)		2,912	(5.1%)
5.	Estimated Population as of January 1, 1990 (Add lines 1 and 4)		59,732	

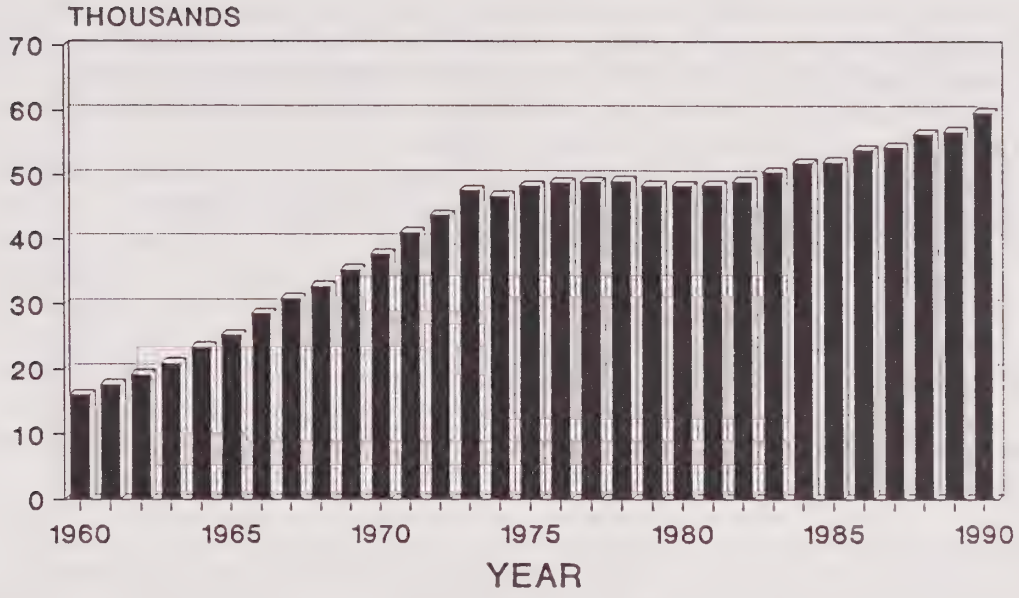
6. Population Growth for Various Growth Rates (line 5 multiplied by line 6a then compounded yearly)

Population Growth Per Year at Various Growth Rates						
a.	year	@1.5%	@2.0%	@2.5%	@3.0%	@3.5%
b.	1991	896	1,195	1,493	1,792	2,091
c.	1992	909	1,219	1,531	1,846	2,164
d.	1993	923	1,243	1,569	1,901	2,239
e.	TOTAL	2,728	3,657	4,593	5,539	6,494

7. Housing Unit Growth for Various Growth Rates (divide 6b, 6c, and 6d by 2.8 persons per household)

Housing Unit Growth Per Year at Various Growth Rates						
a.	Year	@1.5%	@2.0%	@2.5%	@3.0%	@3.5%
b.	1991	320	428	533	640	747
c.	1992	325	435	547	659	773
d.	1993	330	444	560	679	800
e.	SUB-TOTAL	975	1,307	1,640	1,978	2,320
f.	Less: 1991-1993 Approvals	903	903	903	903	903
g.	TOTAL AVAILABLE FOR ALLOCATION	72	404	737	1,075	1,417

LIVERMORE POPULATION
1960-1990



Source: State Dept. of Finance Records
Figure 1

LIVERMORE POPULATION
PROJECTIONS FOR 1990-2000

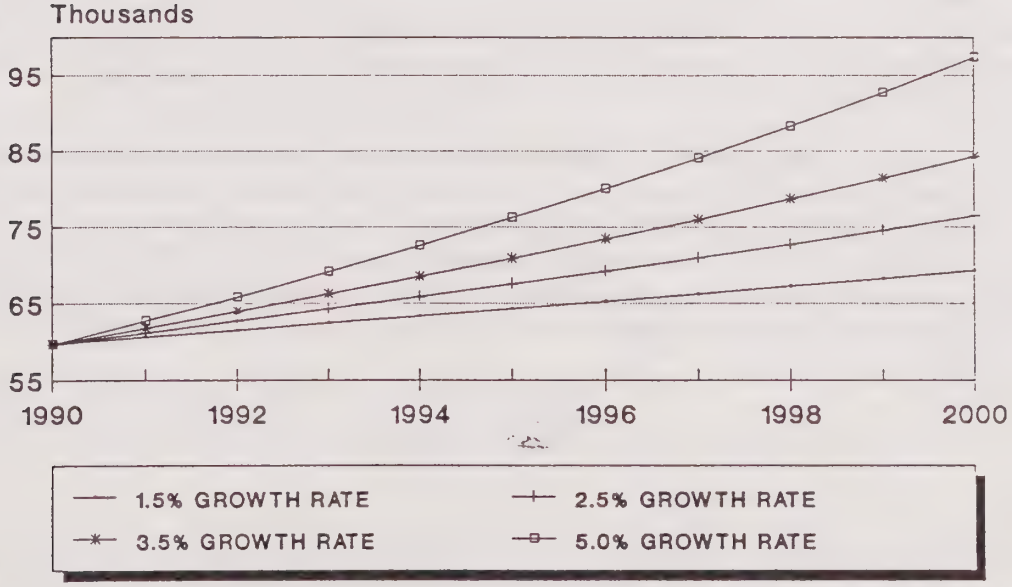


Figure 2

WASTEWATER CAPACITY

Sufficient sewer treatment and export capacity exists to service any growth rate within the 1.5% - 3.5% range permitted by the General Plan for the next three year period if expansions are completed on time. After the Phase 2 sewer treatment capacity expansion is completed in spring 1992, the treatment capacity will match export capacity. The effective growth rate is a combination of the stated growth rate and the exempt units for the period. The exempt units for 1988 added the equivalent of .7% to the growth rate for an effective growth rate of 4.2% (3.5%+0.7%). The 1989 exempt unit approvals and applications to date (if all approved) would add approximately 1.8% to the growth rate for an effective growth rate of 5.3% (3.5% + 1.8%). Therefore, both capacities will be exceeded in 1995 for an effective growth rate of 5.0%, in 1996 for a 4.0% growth rate, in 1997 for a 3.5% rate, in 1999 for a 3.0% rate, in 2000 for a 2.5% rate, in 2003 for a 2.0% rate and 2008 for a 1.5% growth rate. Please see Figure 4 for an illustration of these alternatives.

In addition, the General Plan requires that any capacity added to the sewer treatment plant above the 5.0MGD level be allocated in the following way: not less than 50% for non residential, not less than 10% for low income housing, and the remainder for other housing. Since the current flow rate through the treatment plant is 5.0MGD, this requirement applies to all current approvals. The effect of this regulation would be to require that at least 20% of all housing approvals should be low income in order to comply with this requirement. Therefore either targeting of low income housing should take place during the coming three year period, or if that policy is no longer appropriate, the General Plan should be amended. The Growth Review Committee recommends amending the General Plan.

The Water Reclamation Plant expansion is proceeding on schedule. Phase One of the expansion, bringing the plant capacity to 7.30 million gallons a day, is scheduled for completion in January 1990. Phase Two of the expansion is scheduled for completion in Spring of 1992.

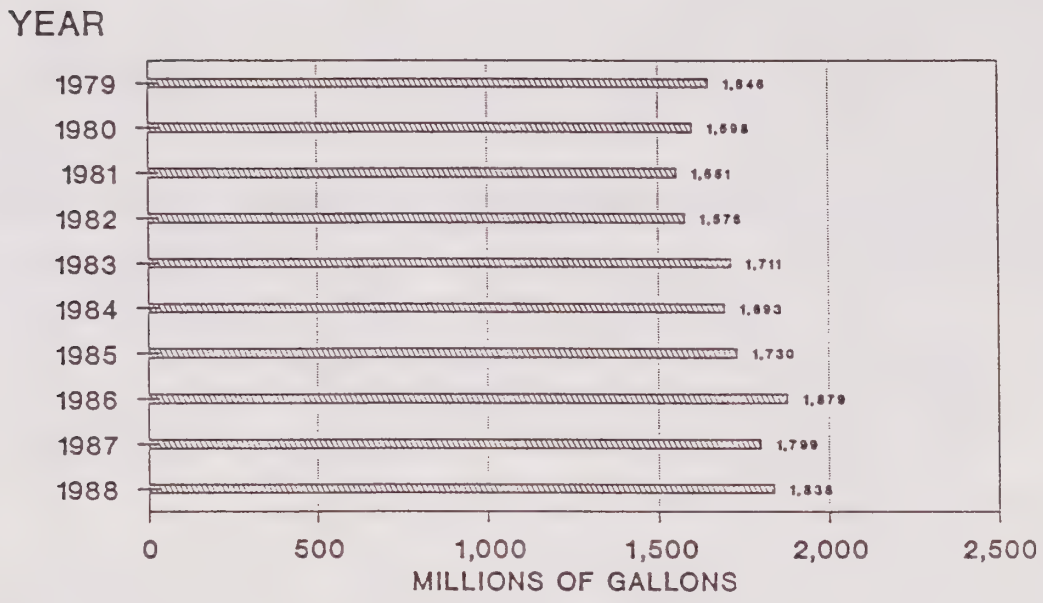
The current flow through the Water Reclamation Plant is approximately 5.0 million gallons a day. The yearly flow through the plant for 1989 is estimated to be 1,838 Million Gallons. This reflects a 1.1% annual growth rate since 1979 and a slight decline since 1986. The current drought and changing building code requirements (such as low flow toilets and shower heads) are probably contributing reasons for this decline.

TABLE 2 AVAILABLE WASTEWATER TREATMENT CAPACITY

Water Reclamation Plant Capacity	Flow Per Day	
1. Present Plant Capacity		6.25 MGD
2. Less: Current Plant Flow	5.0 MGD	
3. V.A. Hospital Reservation	0.20 MGD	5.20 MGD
4. Unused Capacity (9-15-89)		1.05 MGD
5. Industrial Capacity, (1.05MGD/2)	525,000 GD	
6. Less: Misc. Industrial/Commercial Commitment (see appendix)	472,000 GD	
7. Uncommitted Industrial Capacity	53,000 GD	
8. Residential Capacity, (1.05MGD/2)	525,000 GD	
9. Less: Remaining Unbuilt Residential Units With Current (1978-1989) Approvals (1,035 units @ 223 gal./unit) (see appendix)	231,000 GD	
10. Current Uncommitted Residential Capacity		294,000 GD
11. Sewer Plant Phase One Expansion (Completion scheduled for January 1990)	1.05 MGD	
12. Residential Portion of Expansion (1.05MGD/2)		525,000 GD
13. Estimated January 1990 Residential Capacity		819,000 GD
14. 1990-1993 Allocated Residential Units (1,820 units @ 223 gal/unit/day)		406,000 GD
15. Uncommitted Residential Capacity		413,000 GD
16. Estimated Capacity in Units Available for Allocation After Phase One Expansion (divide line 15 by 223 gallons per residential unit per day)		1,852 Units
17. Sewer Plant Phase Two Expansion (Completion scheduled for Spring 1992)	1.20 MGD	
18. Residential Portion of Expansion (1.20MGD/2)	600,000 GD	
19. Additional Capacity in Units Available for Allocation (divide line 18 by 223 gallons per residential unit per day)		2,691 Units
20. Estimated Capacity in Units Available for Allocation after Phase Two Expansion		4,543 Units

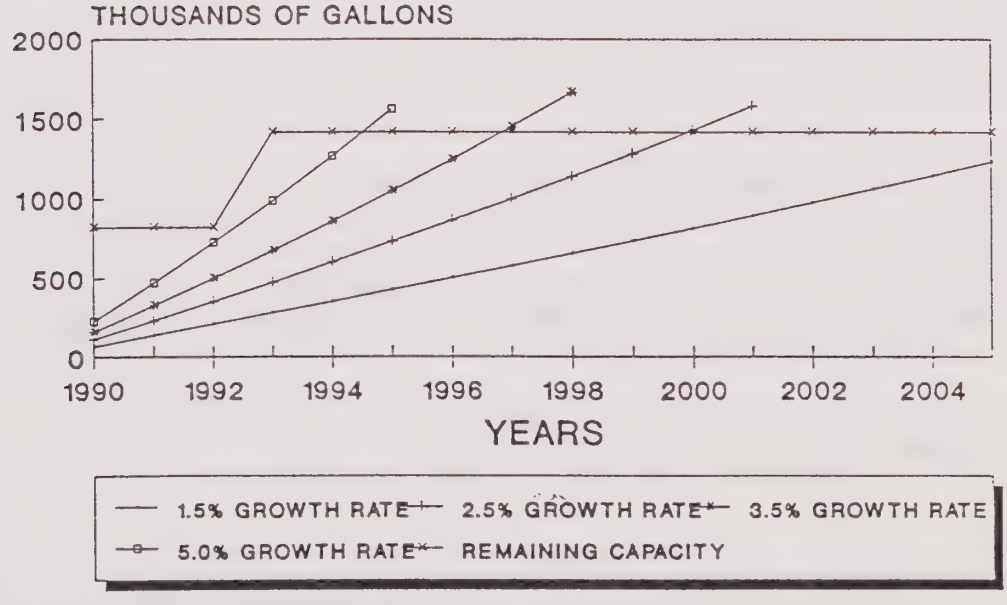
NOTE: Flow estimates are averages and are accurate to + or -100,000 gallons per day and unit estimates are correspondingly accurate. Also some figures may not appear to compute properly due to rounding.

WATER RECLAMATION PLANT
YEARLY FLOWS



Source: City WRP Records
Figure 3

SEWER TREATMENT CAPACITY
FLOWS AT VARIOUS GROWTH RATES



BASED ON REMAINING RESIDENTIAL CAPACITY
Figure 4

WASTEWATER EXPORT CAPACITY

The present wastewater export capacity is 8.5 millions gallons a day. No appreciable amount of material is removed at the treatment plant so that virtually all of the incoming material is exported. However, during the summer months, reclaimed water is used to irrigate the Las Positas Golf Course, the airport landscaping, and a portion of the Cal Trans right-of-way. The irrigation needs of these facilities normally reduce the amount exported by 400,000 to 450,000 gallons a day.

TABLE 3 AVAILABLE WASTEWATER EXPORT CAPACITY

Export Pipeline Capacity	Flow Per Day	
1. Present Export Capacity		8.50 MGD
2. Less: Current Plant Flow	5.0 MGD	
3. V.A. Hospital Reservation	0.20 MGD	5.20 MGD
4. Unused Capacity (9-15-89)		3.30 MGD
5. Industrial Capacity, (line 4 divided by 2)	1,650,000 GD	
6. Less: Misc. Industrial/Commercial Commitment (see appendix)	472,000 GD	
7. Uncommitted Industrial Capacity	1,178,000 GD	
8. Residential Capacity, (line 4 divided by 2)	1,650,000 GD	
9. Less: Remaining Unbuilt Residential Units With Current (1978-1989) Approvals (1,035 units @ 223 gal./unit) (please see attachment 2)	231,000 GD	
10. Current Uncommitted Residential Capacity		1,419,000 GD
11. 1990-1993 Allocated Residential Units (1,820 units @ 223 gal/unit/day)		406,000 GD
12. Uncommitted Residential Capacity		1,013,000 GD
13. Estimated Capacity in Units Available for Allocation in 1990 (divide line 15 by 223 gallons per residential unit per day)		4,543 Units

NOTE: Flow estimates are averages and are accurate to + or -100,000 gallons per day and unit estimates are correspondingly accurate. Also some figures may not appear to compute properly due to rounding.

WATER QUANTITY AND QUALITY

A sufficient supply of treated water exists to service any growth rate within the 1.5% - 3.5% range permitted by the General Plan for the next three years and until around the turn of the century. Water quality in Livermore should remain constant or improve slightly as consumption increases due to the increasing percentage of surface water that will be used.[1]

Treated water is supplied to Livermore by Zone 7 of the Alameda County Flood Control and Water Conservation District. Zone 7 is the water wholesale distributor for the area, and also monitors and maintains the groundwater basin. Zone 7 provides water from three sources: imported surface water, local surface water and local groundwater. The primary source is the South Bay Aqueduct which supplies surface water from the Sacramento-San Joaquin Delta.

After the expansion of the Del Valle Water Treatment Plant is completed in 1990, Zone 7 will have enough capacity for projected demand expansion through the turn of the century. Using the State Department of Water Resources' (DWR) "1986 Rule Curve Operating Criteria" and the 50th percentile for supply, it can be deduced that under current conditions, about 31,000 acre feet annually (AFA) would be available to Zone 7 about 50% of the time. This assumes no expansion of existing state facilities. Including 8,000 AFA local surface water supply, the 39,000 AFA corresponds to an adequate supply through the year 2006. The 50% criteria is used because the Zone's groundwater basin allows excess waters to be recharged during wet years and greater than normal withdrawals during dry years.

How Zone 7 will supply projected demand after 2006 is slightly less certain. Zone 7's State water entitlement increases over time from its 1989 entitlement of 31,000 acre-feet per annum (AFA) until it reaches its full entitlement of 46,000 AFA in 1997. The full entitlement assumes that the State delivers all of the water it has specified in its contract with Zone 7. Some expansion of State water delivery systems will be necessary to meet the full Zone 7 entitlement. Some of those expansions (approximately 2/3 of the needed amount) are either currently under way or very likely to proceed, such as the Kern Water Bank Program, and the Los Banos Grandes Reservoir. Other expansions are less certain at this time. Therefore it is very likely that the State will be able to fulfill a large share of the ultimate entitlement, but less certain that it will be able to fulfill the entire entitlement. Based upon the information currently available from the State, it is reasonable to assume that DWR will eventually find ways to incrementally fulfill its long-term contractual commitments. Zone 7's long range planning reports are based upon that assumption. However, to supplement its supply, Zone 7 is currently

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1 Water quality in any one year will be highly dependent on the supply conditions to the Sacramento San Joaquin Delta, but it is estimated that it will remain relatively constant on average duri the planning period.

considering the future purchase of water from other sources including the Los Vaqueros Reservoir.

The second source of supply is locally conserved runoff into Lake Del Valle. The average annual volume of water available to the Zone under its Del Valle water rights is around 8,000 AFA.

The third source of supply is the local groundwater basin. It is estimated that the yield of the basin under current conditions is around 12,000 AFA. Although this yield is essentially fully utilized by the Zone's retailers and other Valley users, the Zone could borrow on groundwater reserves during dry periods and replace it by recharging surplus water during wet periods. Please see Table 4, a 15 year hydrological summary of the Valley groundwater basin. During the past five years, the groundwater table has been lowered as a result of an agreement with the gravel extraction companies in the valley. The drier than normal conditions in the past several years have also facilitated this reduction of groundwater level. As of 1989 the new level has been reached and no further drops in the water table are planned.

All of the water Zone 7 provides to Livermore is surface water. Under normal conditions, Zone 7 does not have the ability to export pumped groundwater from their wells in Pleasanton and Dublin to Livermore. Zone 7 does not anticipate either pumping ground water in Livermore or exporting ground water pumped elsewhere to Livermore in the foreseeable future. Cal Water currently pumps its maximum allotment so that as demand increases, it will purchase additional surface water from Zone 7. As further development takes place, water quality in those parts of Livermore served by Cal Water could actually improve slightly because the fraction of ground water used will decrease. Water quality in areas served by the City should remain unchanged. However, as Zone 7 increases the fraction of ground water used in Pleasanton and Dublin by installing additional wells, water quality in those areas will marginally decrease during the summer months.

Currently, except for trihalomethanes (THM), the quality of treated imported and local surface waters is much better than that of local groundwaters pumped from the Zone's and its retailers' wells. Because of this, there is a commitment to deliver as much treated surface water as possible to the residents of the Valley, using the groundwater basin as a backup supply.

The water supplied by Zone 7 water is currently in compliance with all Federal and State standards. The last time any standard was exceeded was in the spring and summer of 1984 when the standard for the level of THM's was exceeded.

ZONE 7
RETAILERS' SERVICE AREAS
LEGEND
CITY OF LIVERMORE
CALIF. WATER SERVICE CO.
D.S.R.S.D.
CITY OF PLEASANTON
LIVERMORE
PLEASANTON

Figure 5

TABLE 4

ZONE 7
WATER RESOURCES ENGINEERING
LIVERMORE-AMADOR VALLEY MAIN GROUNDWATER BASIN
HYDROLOGIC INVENTORY COMPONENTS IN ACRE-FEET
1974-88 WATER YEARS

Water Year	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	TOTAL	AVERAGE
SUPPLY COMPONENTS																	
Stream Recharge																	
Arroyo del Valle																	
Natural	2,400	2,950	360	290	2,450	1,290	1,750	840	2,970	4,893	2,580	751	2,831	527	679	27,561	1,840
Artificial *	3,210	5,860	1,990	1,300	4,040	6,870	5,960	7,250	4,290	1,870	1,160	1,205	882	872	724	47,483	3,170
Total	5,610	8,810	2,350	1,590	6,490	8,160	7,710	8,090	7,260	6,763	3,740	1,956	3,713	1,399	1,403	75,044	5,000
Arroyo Mocho																	
Natural	3,160	3,760	540	140	5,900	1,170	2,500	860	4,810	6,630	3,460	1,297	2,972	644	618	38,481	2,570
Artificial	1,670	1,830	3,220	1,290	2,840	5,780	5,270	5,130	3,290	930	0	0	0	0	1,172	32,422	2,160
Total	4,830	5,590	3,760	1,430	8,740	6,950	7,770	6,010	8,100	7,560	3,460	1,297	2,972	644	1,790	70,903	4,730
Arroyo las Positas																	
Natural	500	400	200	200	500	400	600	460	840	980	1,130	1,074	1,161	1,326	1,072	10,863	720
Artificial	500	600	600	600	600	600	400	460	220	0	0	0	0	0	0	4,580	310
Total	1,000	1,000	800	800	1,100	1,000	1,000	940	1,060	980	1,130	1,074	1,161	1,326	1,072	15,443	1,030
Total	11,440	15,400	6,910	3,820	16,330	16,110	16,480	15,040	16,420	15,303	8,330	4,327	7,846	3,369	4,265	181,390	10,760
Rainfall Recharge	3,955	3,333	0	0	5,631	2,793	4,705	1,435	13,025	18,445	4,023	2,013	10,647	580	575	71,240	4,750
Applied Water Recharge	2,613	2,409	3,011	2,900	2,696	2,952	2,551	2,014	1,242	1,268	2,027	1,795	1,831	1,792	1,890	32,991	2,200
Subsurface Basin Inflow	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430	6,450	430
SUPPLY TOTAL	18,438	21,572	10,351	7,150	25,087	22,285	24,246	18,919	31,117	35,446	14,810	8,565	20,754	6,171	7,160	272,071	18,140
DEMAND COMPONENTS																	
Municipal Pumpage																	
City of Pleasanton	2,264	2,497	1,707	3,271	2,640	3,273	2,961	3,087	3,565	3,686	3,486	3,056	3,705	3,310	3,548	46,258	3,080
Cal. Water Service	2,612	2,852	2,781	1,312	1,964	2,383	2,531	2,695	2,286	2,660	3,035	2,768	2,774	3,276	2,761	38,710	2,580
Zone 7	5,405	3,089	1,281	310	745	825	42	0	0	23	348	1,199	1,164	488	2,043	16,962	1,130
Others	1,272	1,252	1,675	1,474	1,397	1,493	1,392	1,482	1,278	1,191	1,308	863	764	771	752	18,184	1,210
Total	11,553	9,690	7,444	6,387	6,746	7,974	6,926	7,266	7,129	7,760	8,177	7,706	8,407	7,845	9,104	120,114	8,010
Agricultural Pumpage	3,977	2,346	4,814	5,190	3,355	3,887	2,775	2,634	1,421	1,462	1,776	2,090	2,092	1,724	1,725	41,268	2,750
Mining Use																	
Gravel Co. Mining Export	1,200	2,220	690	470	800	2,000	3,480	6,530	6,050	12,760	4,340	4,270	8,860	560	2,443	56,673	3,780
Evaporation/Production Use	1,890	2,020	2,420	2,540	1,900	1,760	2,370	2,500	1,650	950	3,130	3,080	2,510	3,960	3,518	36,198	2,410
Total	3,090	4,240	3,110	3,010	2,700	3,760	5,850	9,030	7,700	13,710	7,470	7,350	11,370	4,520	5,961	92,871	6,190
Basin Outflow	0	0	0	0	0	150	530	550	2,160	2,960	2,240	1,200	600	600	400	11,390	760
DEMAND TOTAL	18,620	16,276	15,368	14,587	12,801	15,771	16,081	19,480	18,410	25,892	19,663	18,346	22,469	14,689	17,190	265,843	17,710
NET RECHARGE	(182)	5,296	(5,017)	(7,437)	12,286	6,514	8,165	(561)	12,707	9,554	(4,853)	(3,781)	(1,715)	(8,518)	(10,030)	6,428	430

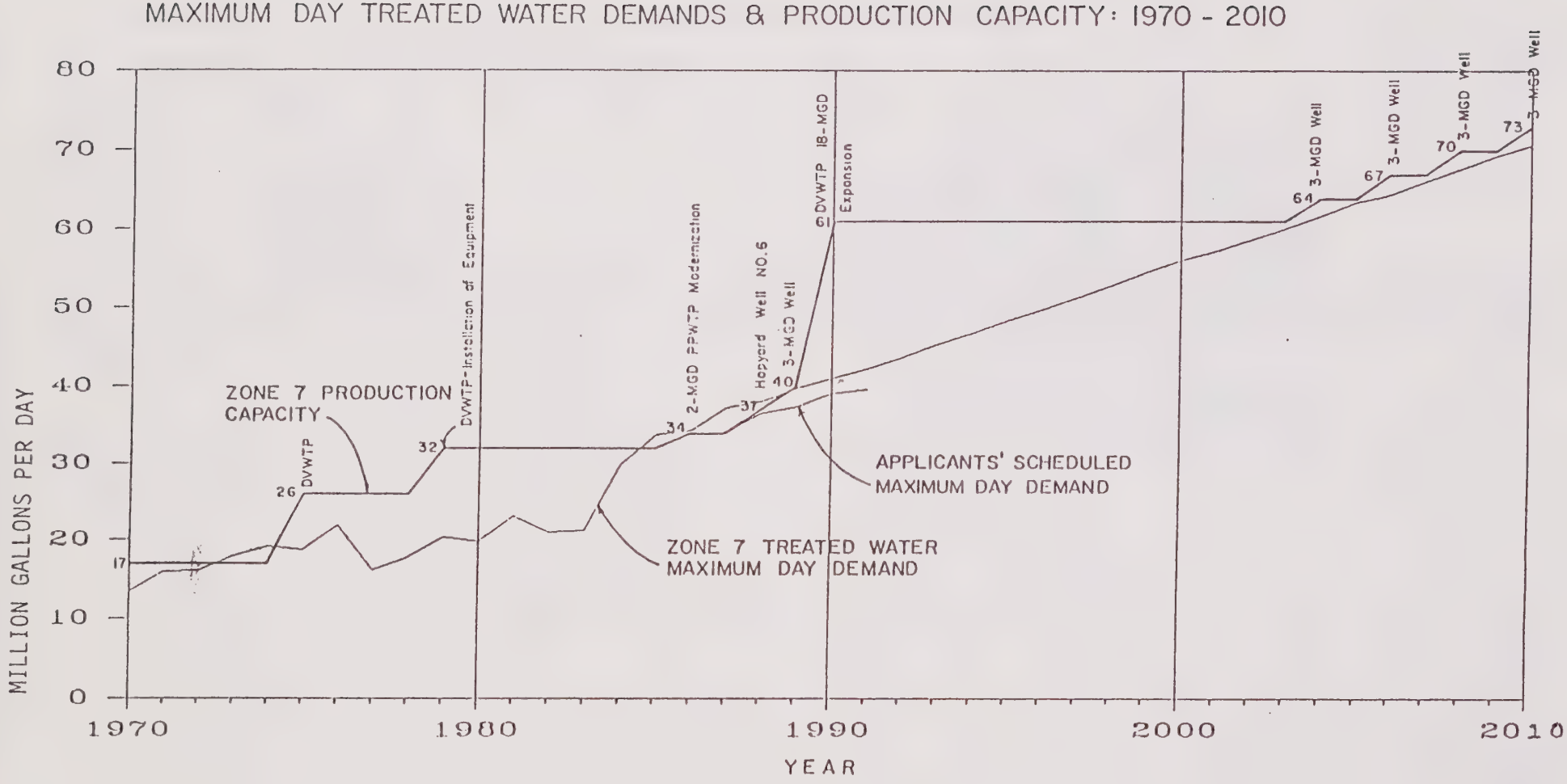
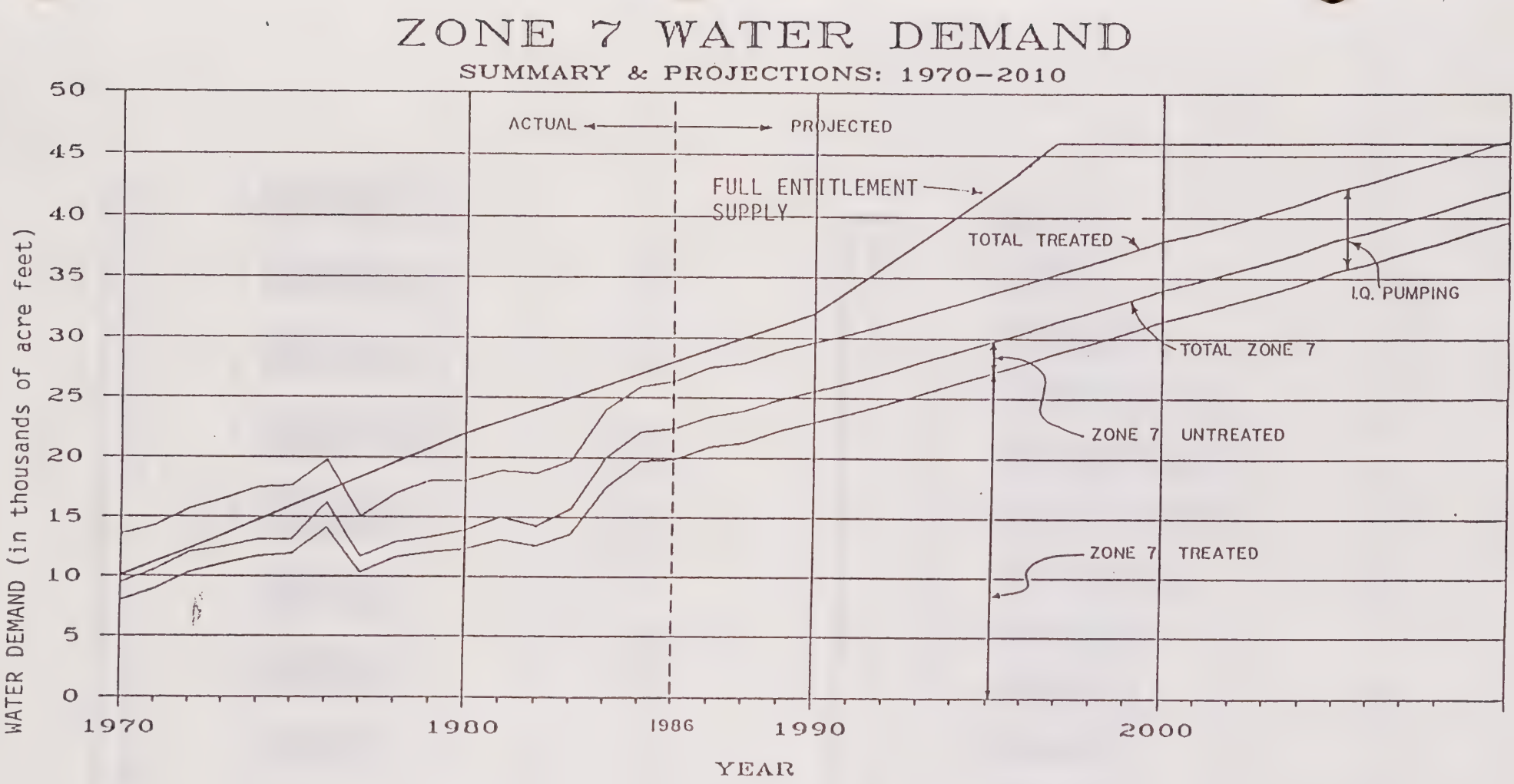

MAXIMUM DAY TREATED WATER DEMANDS & PRODUCTION CAPACITY: 1970 - 2010
MILLION GALLONS PER DAY
0
10
20
30
40
50
60
70
80
1970
1980
1990
2000
2010
YEAR
ZONE 7 PRODUCTION CAPACITY
17
DVWTP
26
DVWTP-Installation of Equipment
32
2-MGD PPWTP Modernization
34
Hopyard Well NO.6
3-MGD Well
37
40
DVWTP 18-MGD Expansion
61
3-MGD Well
64
3-MGD Well
67
3-MGD Well
70
73
APPLICANTS' SCHEDULED MAXIMUM DAY DEMAND
ZONE 7 TREATED WATER MAXIMUM DAY DEMAND

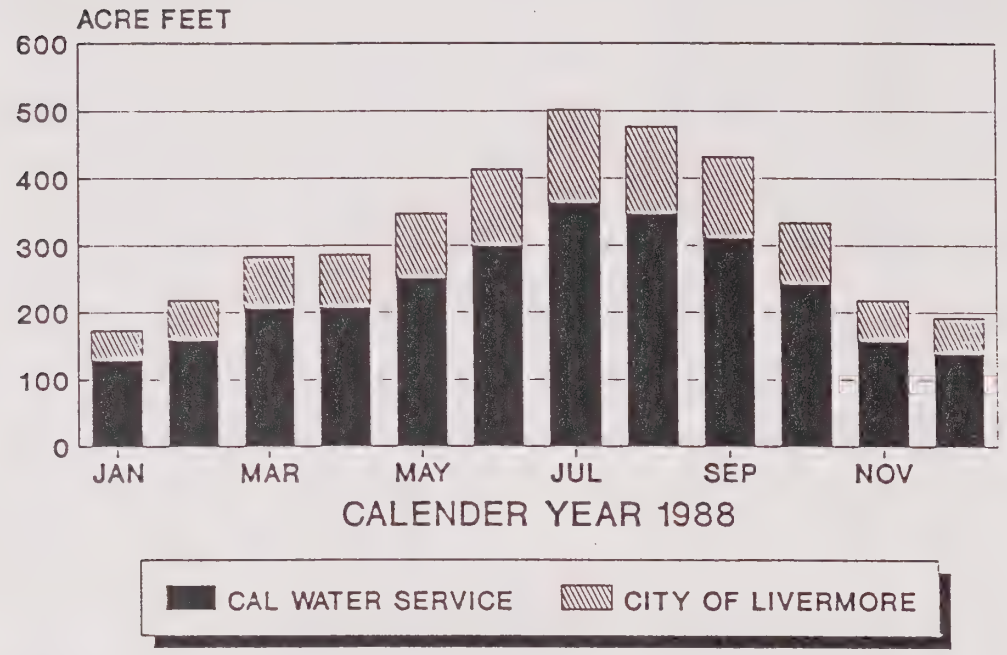
Figure 6



I.Q. Pumping - Independant Quotient Pumping (Pumping by others than Zone 7)

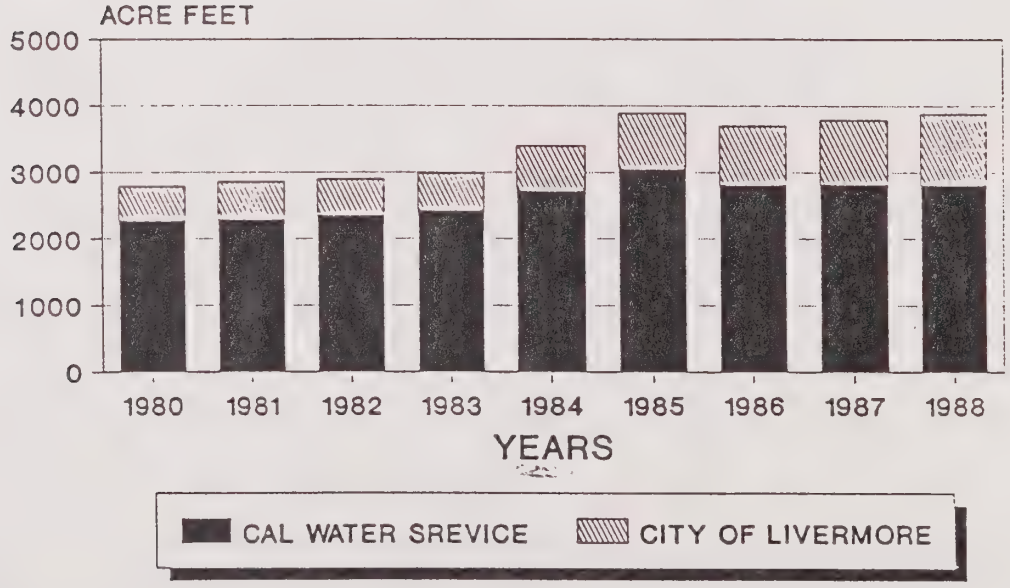
Figure 7

WATER USE BY MONTH



Source: Zone 7
Figure 8

WATER USE BY YEAR
1980-1988



Source: Zone 7
Figure 9

AIR QUALITY

The region's air quality regulatory agency, the Bay Area Air Quality Management District (BAAQMD) operates a monitoring station in Livermore. Information on all monitored air pollutants was obtained from that station.

The Livermore area continues to exceed State and Federal Air Quality standards for concentration of ozone. The number of days exceeding State and Federal standards have remained more or less constant over the last several years in this area. Exceedances for both the one-hour and the twenty-four-hour standards are based on number of days out of compliance, regardless of the number of times the standard is not met within any day. There is no current data available delineating what portion of pollutants is produced locally verses what portion is blown in from other sources. However, BAAQMD is beginning a two year macro scale computer modeling that will result in much better and more quantified understanding of this issue. Without this information, it is difficult to determine what effect the City's growth will have on its air quality.

AIR QUALITY CONDITIONS

Valley Conditions As Monitored By the Livermore Area Station

TABLE 5 OZONE EXCEEDANCES

Days Standard Was Exceeded Each Year	Year					
Standard	'83	'84	'85	'86	'87	'88
State						
1 hr. ≥ 0.10 ppm	20	32	21	20	10	21
1 hr. = 0.12 ppm	02	03	03	03	01	
Federal						
1 hr. > 0.12 ppm	08	07	04	03	03	04
Peak Concentration ppm	.16	.15	.15	.14	.15	.15

TOTAL SUSPENDED PARTICULATES	Year				
	'83	'84	'85	'86	'87
Mean (the annual geometric mean in micrograms per cubic meter) (mmg/m3)	43	55	53	46	50
Days Standard Was Exceeded Each Year	00	00	00	00	00

PM10

On July 1, 1987 the Federal Standard for Total Suspended Particulates changed to measure only particles less than 10 microns in size instead of all total suspended particulates. The state standard was changed before 1987. The State 24 hour Standard is now 50 micrograms per cubic meter. The annual mean State Standard is 30 micrograms per cubic meter. The Federal 24 Hour Standard is 150 micrograms per cubic meter and the annual mean Federal Standard is 50 micrograms per cubic meter (mmg/m3).

TABLE 6 PM10 EXCEEDANCES

Number of Days Standard Was Exceeded Each Year

Standard	Year 1988
State	
24 hr. (50mmg/m3)	7
Annual Mean (30mmg/m3)	7
Federal	
24 hr. (150mmg/m3)	0
Annual Mean (50mmg/m3)	0
Peak concentration	32

SOURCE: Avi Okin, Jean Roggenkamp, Bay Area Air Quality Management District

TRAFFIC CIRCULATION

Traffic circulation is most easily monitored through the use of traffic counts. Traffic counts are not currently taken on an annual or systematic basis within the City. According to the Engineering Department, the counts are not taken due to a lack of personnel. Currently counts are taken on the basis of individual requests which are approved by the Engineering Department. The GRC has requested that resources be allocated to allow systematic counts to be taken and analyzed by the City.

The creation of an annual traffic count program may depend on the allocation of additional resources by the City Council in order to create this database. The Growth Review Committee recommends that a program of traffic counts be undertaken within the City to systematically monitor the effects of development on the City's Circulation system.

PARKS AND OPEN SPACE

The Livermore Area Recreation and Park District (LARPD) provides park services to the residents of the Livermore area. In its 1989 Master Plan, the District establishes standards for Neighborhood, Special Use, Community and Regional Parks. In addition the National Recreation and Park Association has also developed standards for acres of parkland per 1,000 residents.

LARPD standards differ form the national standard as noted in the following table:

TABLE 7 PARK STANDARDS

PARK TYPE	Neighborhood	Special	Community	Regional
LARPD Standard	2 ac/1000	3 ac/1000	2 ac/1000	15ac/1000
National Standard	2.5 ac/1000	0 ac/1000	2.5 ac/1000	20ac/1000

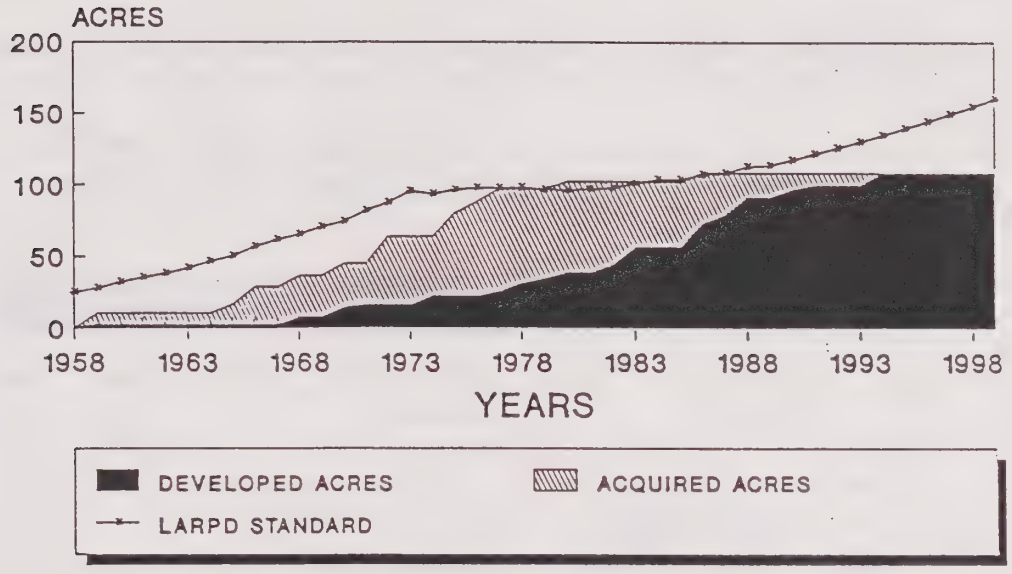
LARPD's standards provide for approximately 40% more urban parks and 25% less regional parks. However, since a variety of park districts provide regional parks within a hour's drive of Livermore, the regional park number is somewhat misleading.

Based on LARPD standards the City has enough Neighborhood and Special Use Parks, but needs one additional Regional Park and two additional Community parks. Please see figures 10-13 illustrating the actual park acquisition and development compared against LARPD's standards.

The development process continues to provide enough Neighborhood and Special Use Parks but the City needs to be vigilant to identify opportunities to acquire larger parcels of land that could be used for a Community Park north of I-580.

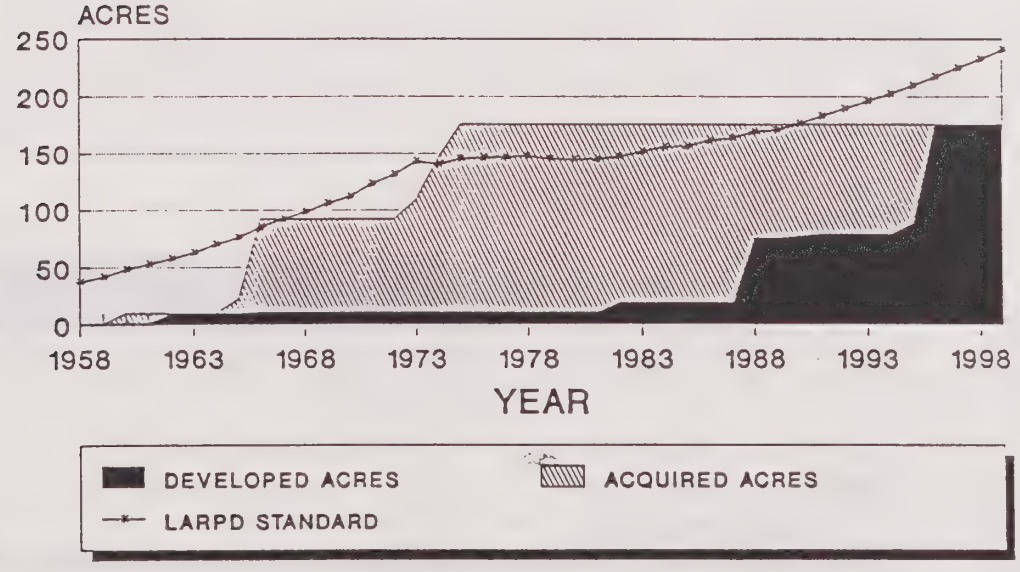
Additional information including a summary of Needs Projections, Proposed and Existing Trails and Bikeways, Regional Opportunities, a Park Status Report, and Existing and Proposed Parks Facilities Diagram, and and Parks facilities explanation sheet have been included in the appendix of this report.

NEIGHBORHOOD PARKS
ACQUIRED AND DEVELOPED ACRES



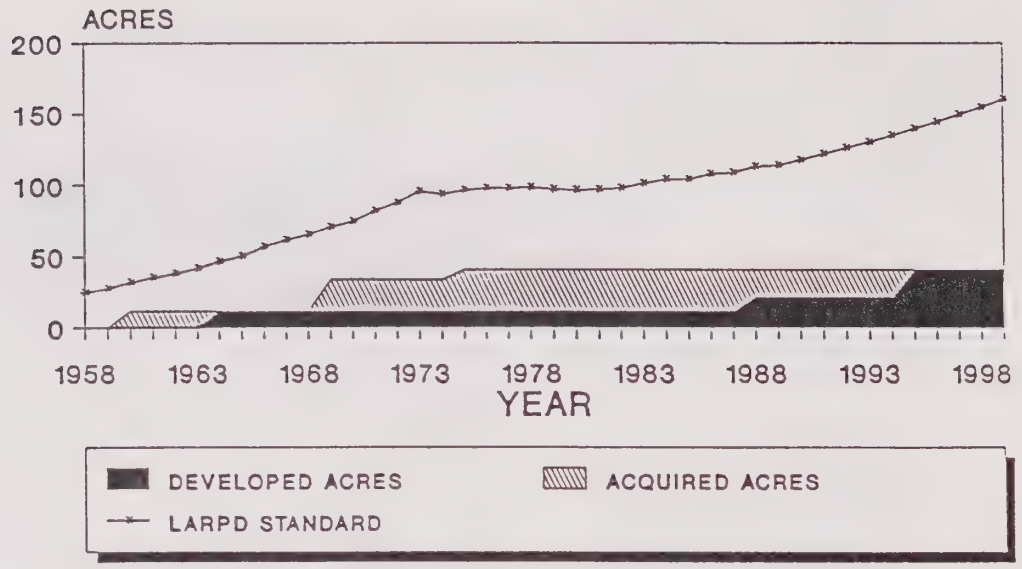
Source: LARPD
Figure 10

SPECIAL USE PARKS
ACQUIRED AND DEVELOPED ACRES



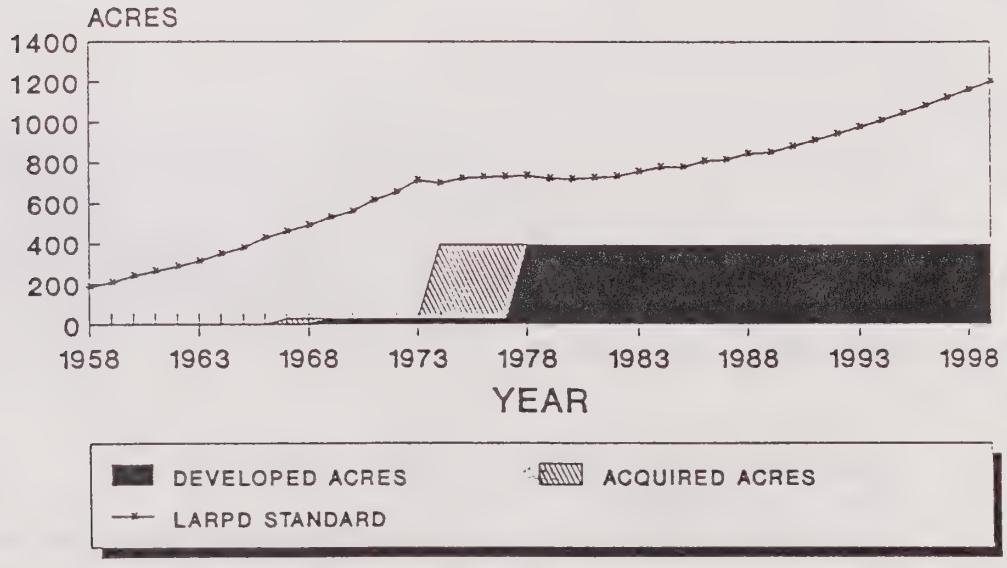
Source: LARPD
Figure 11

COMMUNITY PARKS
ACQUIRED AND DEVELOPED ACRES



Source: LARPD
Figure 12

REGIONAL PARKS
ACQUIRED AND DEVELOPED ACRES



Source: LARPD
Figure 13

SCHOOL CAPACITY

The school district has recently prepared a report which included an analysis of their existing facilities and proposed new facilities.

Several schools have been identified as lacking the capacity to serve all the possible residential development projects in those areas. The school district informed staff that the capacity of all elementary schools is 700 students. Because of other activities at each school site, portable classrooms would be used to provide classroom space for some of the 700 students. The specific information regarding impacted schools is provided below.

Elementary Schools

Christensen
The school district is currently in the process of acquiring a new elementary school site on Scenic Avenue. This new school site is scheduled to be available beginning in fall of 1991. In addition, Christensen school will be expanded and converted into a duel 4-5 and 6-8 school until the mid 1990's. After 1995, Christensen will be converted into a middle school with a capacity of 850 students. At that time, a second elementary school will be needed north of the freeway.

If all of these improvements take place on schedule, sufficient school capacity will be available to serve the area for the next three years.

Portola Avenue
This is the most seriously impacted school in the system. Current projections show that adjustment of school boundaries will be necessary even without any additional approvals. If further development occurs in this area, other elementary school alternatives would need to be explored.

Middle Schools

Junction
With no additional construction, the capacity of Junction Avenue middle school will be exceeded by 1991. The planned conversion of Christensen into a middle school starting in 1991 will alleviate this problem.

East
Like Junction, with no additional construction, the capacity of East Avenue school will be exceeded by 1990. The planned conversion of Christensen will allow adjustment of the middle school boundaries which will allow for sufficient capacity.

POLICE SERVICES

The following data is based upon calendar year 1988 coinciding with federal and state statistical reporting. National data is 1987-the most recent available. Budget references are Fiscal Year 1987/88 and 88/89.

TABLE 8 1987/1988 LIVERMORE POLICE PERFORMANCE COMPARED TO AVERAGES

FY 1987/88 COMPARISON OF POLICE PER-CAPITA EXPENDITURES[2]

		Percent[3]
National Average	$120.72	100%
Pacific States Average	$160.22	133%
Livermore, 1987/88 ($5,493,040/56,000 population)	$ 98.09	81%
Livermore, 1988/89 ($6,043,580/57,000 population)	$106.03	88%

1987 COMPARISON OF NUMBER OF FULL TIME POLICE PERSONNEL[4]

	Personnel Per 1,000 Population			
	Sworn	Civilian	Total	Percent
National Average	2.1	.7	2.8	100%
Pacific States Average	1.7	.6	2.3	82%
Livermore, 1987	1.0	.7	1.7	61%
Livermore, 1988	1.0	.7	1.7	61%

1987 COMPARISON OF SERIOUS, PART I REPORTED CRIME RATES PER 100,000 POPULATION[4]

	Number	Percent
National Average	5550	100%
Pacific States Average	6568	118%
East Bay Metropolitan Statistical Area	7439	134%
Livermore, 1987 - 56,000 population	4375	79%
Livermore, 1988 - 57,000 population	4545	82%

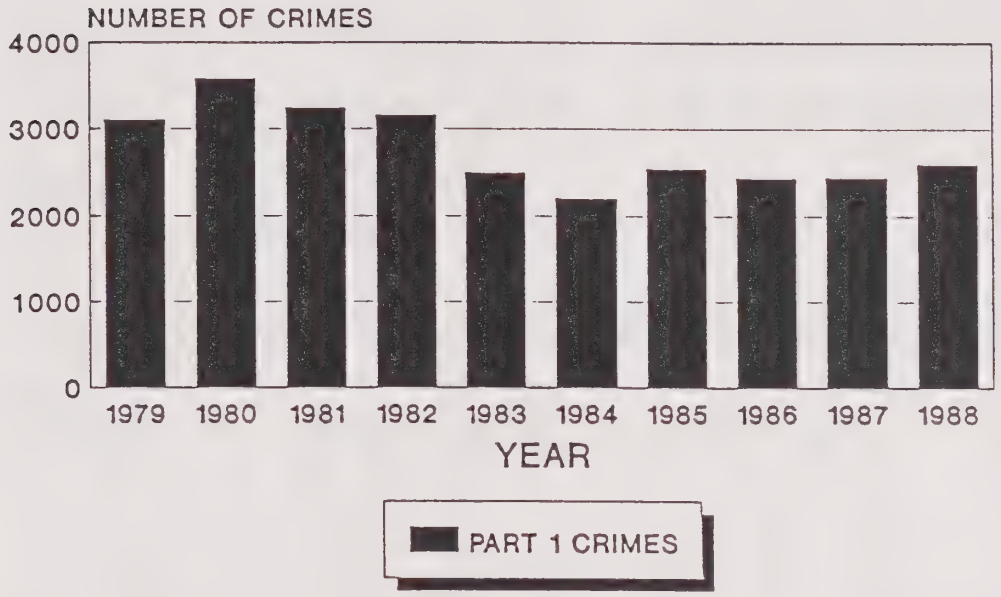
1987 COMPARISON OF SERIOUS, PART I CRIME CLEARANCE RATES[4]

National Average	20.9%
Pacific States Average	21.6%
Livermore, 1987	22.7%
Livermore, 1988	22.1%

This data reflects that Livermore has below average per capita cost for police service, fewer personnel per 1,000 population, lower reported crime rate and above average crime clearance rates. Reported serious crimes have remained stable over the last several years. Based on this overall pattern of stability, it appears that the growth rate has not had a significant impact on police services.

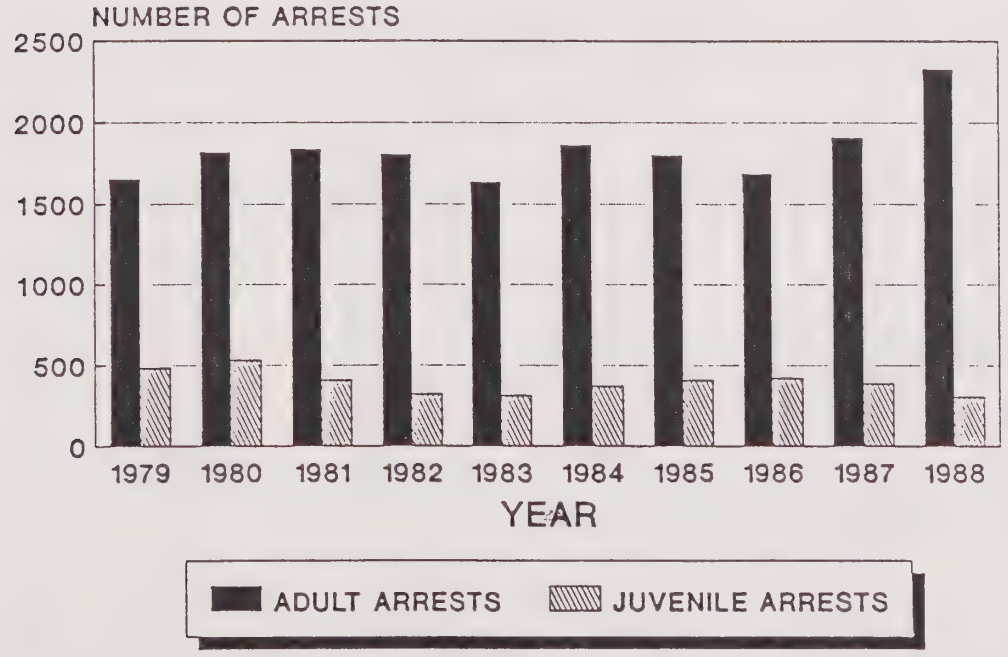
[2] FY 1987/88 Urban Data Service, I.C.M.A.
[3] Percent of National Average
[4] 1987 F.B.I. Uniform Crime Reports (1987 data, most recent available)

REPORTED PART I CRIMES
1979-1988



Source: Livermore Police Annual Reports
Figure 14

JUVENILE & ADULT ARRESTS



Source: Livermore Police Annual Reports
Figure 15

Table 9

REPORTED CRIME AND SERVICE REVIEW

POLICE DISPOSITION OF JUVENILE OFFENDERS ARRESTED AND BOOKED, 1988

HANDLED WITHIN THE DEPARTMENT AND RELEASED (Warning, counseling, etc.)	6	2%
REFERRED TO JUVENILE COURT	169	57%
REFERRED TO HORIZONS YOUTH AND FAMILY SERVICE	124	41%
	299	100%

These figures do not include youthful non-arrested criminal or status offenders.

REPORTED PART I CRIME RATE PER HUNDRED THOUSAND POPULATION

CRIME	REPORTED 1988 PER	(1) 1988 RATE 100,000	REPORTED 1987 PER	(2) 1987 RATE 100,000	1987 (3) PACIFIC STATES RATE PER 100,000
HOMICIDE	1	2	0	0	9.4
RAPE	18	32	18	32	45.1
ROBBERY	21	37	23	41	264.3
AGGRAVATED ASSAULT	185	324	157	281	485.6
RES/COMM. BURGLARY	459	803	541	968	1567.3
LARCENY	1738	3042	1580	2828	3466.0
AUTO THEFT	175	306	125	224	730.1
TOTAL CRIMES	2597	4545	2444	4375	6567.7

(1) 57,000 POPULATION
(2) 56,000 POPULATION
(3) 1987 UNIFORM CRIME REPORT

REPORTED PART I CRIME CLEARANCE RATE

CRIME	1988 CLEARANCES	PERCENT	1987 CLEARANCES	PERCENT	1987 (4) PACIFIC STATES CLEARANCES %
HOMICIDE	0	0.0%	1	0.0%	65.8%
RAPE	14	77.8%	12	66.7%	51.0%
ROBBERY	12	57.1%	6	26.1%	27.8%
AGGRAVATED ASSAULT	159	85.9%	107	68.2%	60.2%
RES/COMM. BURGLARY	49	10.7%	98	18.1%	13.2%
LARCENY	300	17.3%	285	18.0%	20.3%
AUTO THEFT	39	22.3%	47	37.6%	15.5%
TOTAL	573	22.1%	556	22.7%	21.6%

(4) 1987 UNIFORM CRIME REPORT

LIVERMORE POLICE DEPARTMENT STATISTICS - 1988

PART I	% CHANGE	1988	CLOSURE	1987	CLOSURE	1986	CLOSURE	1985	CLOSURE
HOMICIDE	+ 100%	1	-0-	-0-	100.0%	2	50.0%	-0-	-0-
RAPE	-0-	18	77.7%	18	66.7%	20	40.5%	12	50.0%
ROBBERY	- 8%	21	57.1%	23	26.1%	32	37.5%	29	72.4%
AGGR. ASSAULT	+ 18%	185	85.9%	157	68.2%	221	52.0%	143	83.9%
BURGLARY	- 15%	459	10.7%	541	18.1%	581	19.4%	614	20.5%
LARCENY	+ 10%	1,738	17.3%	1,580	18.0%	1,442	18.7%	1,539	16.3%
AUTO THEFT	+ 40%	175	22.3%	125	37.6%	132	23.5%	144	24.3%
SUBTOTAL	+ 6%	2,597	22.1%	2,444	22.7%	2,430	22.6%	2,541	22.4%

PART II	% CHANGE	1988	1987	1986	1985
ARSON *	+ 60%	16	10	14	90*
ASSAULT, OTHERS	+ 32%	754	572	411	252
CHILD BEATING	+ 20%	36	30	42	43
DRUNK IN PUBLIC	- 6%	357	380	358	368
DRUNK DRIVING	- 1%	275	278	253	286
FRAUD, FORG., CHECKS	- 8%	508	554	939	1,034
LIQUOR VIOLATIONS	- 39%	65	107	284	111
MOLESTATION, CHILD	+ 43%	57	40	32	56
NARCOTICS, VIOLATIONS	+ 22%	192	158	161	190
OFFICER RESISTANCE	- 13%	73	84	62	67
PROSTITUTION	-0-	-0-	-0-	-0-	-0-
SEX OFFENSES, OTHER	- 29%	30	42	46	59
STOLEN PROP. REC'D.	- 59%	7	17	32	40
VANDALISM	+ 11%	823	750	743	775
WEAPON LAWS	- 14%	63	79	59	57
OTHER CRIMES	- 21%	759	964	1,237	1,000
SUBTOTAL	- 1%	4,026	4,065	4,573	4,423

ARRESTS	% CHANGE	1988	1987	1986	1985
ADULT - FELONY	+ 11%	326	295	295	322
ADULT - MISDEMEANOR	+ 24%	2,001	1,614	1,350	1,477
JUVENILE - FELONY	- 14%	90	105	131	110
JUVENILE - MISDEMEANOR	- 23%	215	280	287	298
SUBTOTAL	+ 15%	2,632	2,294	2,163	2,207

TRAFFIC COLLISIONS	% CHANGE	1988	1987	1986	1985
PROPERTY DAMAGE	+ 6%	799	753	914	839
HIT AND RUN	+ 7%	(163)	(152)	(208)	(217)
INJURY	+ 17%	269	230	259	225
FATAL	- 33%	2	3	3	1
DRUNK DRIVING ACCIDENT	- 6%	(50)	(53)	(32)	(41)
SUBTOTAL	+ 9%	1,070	986	1,176	1,115

TRAFFIC CITATIONS	% CHANGE	1988	1987	1986	1985
MOVING CITATIONS	- 8%	5,118	5,544	4,065	4,061
PARKING CITATIONS	- 9%	2,512	2,761	3,834	2,863
OTHER CITATIONS	+ 16%	3,406	2,948	2,153	3,294
BICYCLE CITATIONS	+ 89%	17	9	36	12
SUBTOTAL	- 2%	11,053	11,262	10,088	10,230

MISC. SERVICES	% CHANGE	1988	1987	1986	1985
ABANDONED AUTOS/STORED	- 31%	421	610	457	404
ALARMS, VALID/FALSE	+ 1%	13/1,553	18/1,553	33/1,426	34/1,401
ANIMAL ACTIVITIES	- 14%	3,873	4,484	3,568	4,080
ANIMAL IMPOUNDS	- 6%	(1,515)	(1,609)	(1,514)	(1,873)
ANIMAL CITATIONS	- 74%	(108)	(421)	(293)	(258)
COMMIT. MENTAL	+ 7%	159	148	84	105
DOMESTIC DISTURB.	+ 58%	546	345	633	566
FIELD INTERVIEWS	- 7%	3,041	3,270	1,194	1,270
LOST & FOUND PROPERTY	+ 26%	565	449	503	490
MISSING PERSONS	+ 43%	119	83	102	109
NOTIFICATIONS/MSG.	+ 65%	497	301	498	405
OUTSIDE ASSISTANCE	+ 21%	310	257	240	213
RUNAWAY CHILDREN	+ 11%	193	174	223	188
SUICIDES	- 17%	5	6	4	4
SUICIDE ATTEMPTS	+ 96%	51	26	18	39
SUSPICIOUS ACTIVITY	+ 5%	2,034	1,928	2,135	2,021
SERVICE REQUESTS	- 14%	7,094	8,243	10,296	13,838
YOUTH COMPLAINTS	-0-	735	N/A	N/A	N/A
SUBTOTAL	- 3%	21,211	21,877	21,381	25,133
TOTAL CASES & ACTIVITY	- 1%	42,549	42,928	41,751	45,654

* Fire department changed reporting method
\+ Changed reporting method

FIRE SERVICES

Currently no systematic statistical data is available on fire and emergency medical treatment responses. Limited information is available from other sources. The Insurance Services Organization (ISO) annually evaluates the ability of fire departments to protect commercial property within their jurisdictions. The ISO rating does not include consideration of the provision of emergency medical attention except when that impacts the ability of the department to respond to commercial structure fires. The ISO uses a 1 through 10 rating scale, with 1 being the best and 10 being the worst. The City's current rating is 4. According to Chief Dennis Van Dermaaten, his goal would be to eventually have a rating of 2. Among the areas considered in the ISO evaluation are, the handling of fire alarms, fire department equipment and personnel, and water supply. The 1 to 10 rating is based on a 100 point scale, with the City's score being 65.33. To achieve a ranking of 2, a score of 80 is required. The City lost the most points in the equipment and personnel category with a 28.54 score out of 50. The Chief noted that staff levels are relatively low with a total of 12 fire personnel on each shift and that staffing levels rather than lack of equipment were substantially responsible for the low score.

To maintain current service levels, the only residential area of the City that will need additional fire department resources in the near future is Planning Area A, (north of I-580, north and east of Springtown). the Chief noted that currently the first unit response time is within the 5 minute goal but that the second unit response goal of 7 minutes and the third unit response goal of 9 minutes are occasionally not met. In order to continue to meet those goals with additional development in that area, additional stations will be needed.

TABLE 11 PER CAPITA INCOME					
JURISDICTION	1979	1981	1983	1985	1988
LIVERMORE Annual growth rate	$ 8,839	$10,558 .09	$11,900 .06	$13,424 .09	$15,323 .05
DUBLIN Annual growth rate	$ 8,033	$ 9,435 .08	$10,272 .04	$11,597 .06	N/A
PLEASANTON Annual growth rate	$ 9,619	$11,488 .09	$13,110 .07	$15,560 .09	N/A
ALAMEDA COUNTY Annual growth rate	$ 8,294	$ 9,763 .08	$10,540 .04	$11,885 .06	N/A

SOURCE: State Census Data Center

N/A = Not Available

EMPLOYMENT

As of 1990, Livermore has approximately 27,200 jobs. This compares with 20,800 jobs in 1985 and 16,700 jobs in 1980[5]. A total of 453,000 square feet of industrial space was absorbed during the first two quarters of 1989. Based on an assumption of two employees per 1,000 square feet[6], that translates into approximately 900 employees, for an annual employment growth of 1,800. This assumes that currently the vast majority of employment growth within the City is related to industrial rather than retail growth. According to ABAG, Livermore is expected to add jobs at a rate of approximately 6.2% annually until the turn of the century. The figure of 1,800 jobs quoted above translates to an annual rate of 6.6%, fairly close to ABAG's estimates.

In addition to the number jobs, the wages being paid in the area is also important. Wage data can be used to examine the relationship between wages and the price range of housing units being produced in an area. Data on this is being collected, but no information is currently available.

5 ABAG Projections 87, page 87
6 Assumption used in traffic generation data for East Livermore Industrial Area

JOBS HOUSING BALANCE

On average there are approximately 1.5 employees living in each household in Livermore. As of 1990, Livermore has approximately 27,200 jobs and 21,591 housing units. Therefore the current jobs housing ratio is 1.26 employees per unit or Livermore has approximately 3,500 more housing units than needed to support the local employment population.

However, based on the ABAG estimates for continued job growth in City, it would take approximately 1,127 housing units a year[7] to match employment growth with housing growth. For 1990, a 1.5% growth rate would translate into 320 housing units and a 3.5% growth rate would translate into 747 housing units. At a 6.2% job growth rate, Livermore's jobs/ housing balance will increase slowly from 1.26 currently to 1.35 at the turn of the century at a growth rate of 3.0%. Currently, it would take a growth rate of 5.2% to maintain the same ratio of jobs to housing.

Although Livermore and the Tri-Valley area have more houses than jobs currently, overall the Bay Area has more jobs than houses. Therefore, many people living in the Livermore commute to areas that do not provide as many houses as jobs (such as the San Jose area). As Livermore begins to create more jobs locally, those housing poor cities will have to create more housing, or employees will have to commute further (such as into the San Joaquin Valley).

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7 27,200 current jobs x 6.2% annual growth rate = 1,690+/- jobs/year
1,690 jobs per year/1.5 employees per household = 1127 housing units per year

TABLE 12 HOUSING VACANCY SURVEY

Housing Type	Total Units	Vacant Units	Percent Vacant
Single Family Detached	15,887	207	1.3%
Single Family Attached	1,143	8	0.7%
Multifamily	3,514	105	3.0%
Mobile Homes	470	0	0.0%
TOTAL	21,114	320	1.5%[8]

Note: The foregoing information includes all the units in zip code 94550, therefore some units included in the above table are outside the Livermore City boundary.

The overall vacancy rate for Alameda County is 1.7%

Source: The 1989 Federal Home Loan Bank Housing Vacancy Survey

LOW AND MODERATE INCOME AND SENIOR HOUSING

Very Low Income housing units are defined as those that are affordable by households making less than 50% of the region's median income. Affordable means that not more than 25% of the household's income would be used for housing. Low Income is defined as affordable by households making 51-80% of the median income, Moderate, 81%-120% of the median income and Above Moderate, greater than 120% of the median income. These standards assume no existing home owner equity.

A total of 716 Low Income housing units and 248 Moderate Income housing units currently exist or are approved within the City. During the last Three Year Program 41 Low Income units and 34 Moderate Income units were approved. This compares to 116 Low Income units and 220 Moderate Income units approved during the previous three year period. In addition, approximately 385 housing vouchers and Section 8 certificates have been issued which can be used for any rental unit within the City. The vouchers and certificates are issued to low income individuals through the Livermore Housing Authority to pay for a portion of their monthly rent. The vouchers and certificates essentially convert an additional 385 market rate units into Low Income units. Therefore, the equivalent of 1,101 Low Income units and 248 Moderate Income units exist in or are approved in the City.

8 ABAG has set a regional housing vacancy goal of 4.5% for the Bay Area. 1989 ABAG Housing Needs Determination, page v.

TABLE 13 EXISTING LOW AND MODERATE INCOME AND SENIOR HOUSING

Total Number of Units	Lower Cost Units	Development	Year of Approval	Year of Completion
96	19 (low)	Livermore Gardens		Prior to 1980
54	54 (low)	Hillcrest Gardens		Prior to 1980
125	125 (low)	Leahy Square		Prior to 1980
125	47 (low)	Meadowbrook		1981
75	75 (low)	Vineyard Village		1982
135	34 (low)	Diablo Vista		1983
365	91 (low)	1983-85 RDP		1983-85
165	41 (low)	The Arbors	1984	1985
32	8 (low)	Springtown Pines	1984	1985
200	50 (low)	Park Paseo Apartments	1984	1987
162	65 (low)	Richards Manor	1985	1987-88
76	15 (low)	Villa Chardonnay	1987	1989
176	35 (low)	Portola Meadows	1988	1990
80	8 (low)	Chateau	1986	1988
465	22 (low) 213 (moderate)	Brookmeadow	1986-1988	1987-89
55	4 (moderate)	Windmill Springs	1989	1990
14	5 (low) 9 (moderate)	East Ave. Investors	1984	1990est.
252	12 (low) 22 (moderate)	Portola Glen	1985-1990	1990
96	either 10 (low) or 19 (moderate)	Portola Park Apts.	1990	1990

716 Low Income Units
248 Moderate Income Units

HOUSING NEED

Several sources can be used to determine housing need. The Association of Bay Area Governments (ABAG) has determined the amount of Very Low, Low Moderate and Above Moderate housing that each jurisdiction within the Bay Area should produce by 1995.

TABLE 14 ABAG PROJECTED NEED BY INCOME CATEGORY 1988-1995					
Income Category	Very Low <50%	Low 51%-80%	Moderate 81%-120%	Above Mod. 120%+	Total
Number Needed	559	381	533	1,066	2,539
Number Approved 1988-1990	0	41	34	2,925	3,000
Number Remaining	559	340	499	0	0

Source: ABAG 1989 Housing Needs Determination and Planning Department Records

Based on the 1988-1990 HIP approvals, the City has met its obligation for Above Moderate Income housing. No Very Low Income housing was produced during the last Three Year Program or the three years before that. Usually, direct governmental intervention in the form of subsidies, grants, government construction and ownership or similar measures are needed to produce Very Low Income Housing. From the information in the table above, it is clear that the production of Low and Moderate Income units would need to increase substantially in order to meet ABAG's goal. A pace equivalent to 500% of the 1988-1990 pace (150% of the 1985-1988 pace) would be needed to meet the Low Income goal. A pace equivalent to 880% of the 1988-1990 pace (135% of the 1985-1988 pace) would be needed to meet the Moderate Income goal. One of the weighting factors ABAG uses in the computation of the needs for various income categories is the regional income distribution. Therefore one of ABAG's goals is a movement toward more even distribution of income categories throughout the region.

TABLE 15 EXISTING AND TARGETED % OF HOUSING BY INCOME CATEGORY				
Income Category	Very Low <50%	Low 51%-80%	Moderate 81%-120%	Above Mod. 120%+
Percent Of Region's Residents With Income In Each Range	23%	16%	21%	40%
Percent Of Livermore Residents With Income In Each Range	15%	12%	23%	50%
ABAG Target For Livermore, % Of Housing Units In Each Range	22%	15%	21%	42%
Estimated Percent Of Existing Housing Units Sold In Each Range 2/89-8/89*	0%	1%	19%	80%

Source: ABAG 1989 Housing Needs Determination

* Based on median household income for a family of four of $42,400. Maximum sales price for low income $120,000, maximum for moderate $150,000.

Another more empirical (but perhaps less accurate) measure of need would relate to waiting lists for housing assistance. According to Barbara Hempill, Human Services Coordinator for the City, there are waiting lists for all housing assistance programs and locations. The waiting lists are normally about 200 names long before the list is cut off. Although many of these lists may contain many of the same people, it would be fairly safe to assume that at least 200 families or individuals are waiting to get into both low income housing and senior housing (demand for a total of at least 400 units).

HOUSING PRICES IN LIVERMORE AND SURROUNDING CITIES

Included with this report are several graphs illustrating information on the housing stock of Livermore and surrounding communities. Figure 16 compares the size of homes (based on number of bedrooms) in Livermore, Dublin, Pleasanton and San Ramon. Assuming that homes in various size ranges sell at approximately the same rate, data on home sales can be used to examine characteristics of the underlying housing stock. In general, the graph illustrates that Livermore has more two and three bedroom units and less four bedroom units than either Dublin, Pleasanton or San Ramon.

Figure 17 compares the number of homes sold in various price ranges in 1986 verses 1989. Table 17 illustrates several types of data including a comparison of the average price paid for various size homes in 1986 verses 1989. In general, over the last three years, prices have moved up approximately 50 to 60 percent, consistent with double digit annual home price appreciation that has been widely reported throughout the Bay Area. Figure 17 illustrates this appreciation and also shows an increase in the number of units available at the upper end of the price range.

Figures 18-21 illustrate the housing prices for new and resale homes that were sold in 1988 in Livermore, Dublin, Pleasanton, and the County of Alameda. The resale homes sold can be used as an indication of the percentage of existing units in each price range, assuming that homes from all price ranges sell at about the same rate. When the "New Homes" category is added an interesting composite of the existing verses new homes develops. For example, in Livermore the majority of both new and resale homes sold in the $100,000 to $200,000 price range. In Pleasanton, the existing homes are evenly spread over the three ranges above $150,000, and the new housing is concentrated in the $150,000 to $200,000 range and the $250,000 and up range. Livermore was the only one of the three communities to create any new homes for less than $100,000 in 1988. In general, Livermore had a greater concentration of both new and resale homes in the less than $200,000 ranges and a smaller percentage of both new and resale homes in the $200,000 and up ranges than either Dublin or Pleasanton.

The information displayed on the above mentioned graphs is consistent with the findings of the GPRC that Livermore provides less housing in the $200,000 and up price range and fewer larger homes than surrounding communities. The approvals for 1989 and 1990 that utilized the emphasized category are not reflected in this data. Over 1,800 units of "move up" housing were approved during those two years to address these findings. This means that the vast majority of new housing produced for the next several years in Livermore will be in the $200,000 to $250,000 and the greater than $250,000 ranges. (1988 dollars) A total of 1,800 new units will have a significant impact on the overall housing mix. By comparison, a total of 220 new units and 1,503 resale units were sold in 1988.

Table 17 also illustrates the percentage of for-sale units available with 2, 3, 4, and 5 or more bedrooms, for 1986, 1989, the 1988-1990 HIP approvals, and 1991. Little change took place between 1986 and 1989,

but 76% of the units approved during the 1988-1990 HIP have four or more bedrooms.

The change between 1986, 1989 and the projected mix for 1991 is also illustrated in figure 22. Figure 23 compares the projected 1991 Livermore mix of home sizes to the existing home sizes in Dublin, Pleasanton and San Ramon (which is assumed to stay fairly consistent until 1991).

TABLE 16
NUMBER AND PRICE OF EXISTING HOMES
SOLD IN LIVERMORE

Price Range	Number of Homes Sold 11/85-6/86	Number of Homes Sold 2/89-8/89
1-70K	1	0
80K	3	0
90K	11	1
100K	31	1
120K	296	6
160K	375	235
200K	56	355
250K	22	165
300K	17	77
350K	0	22
400K	0	18
450K	0	20
500K	0	6
550K	0	2
600K	0	3
600K+	0	3

Source: Southern Alameda County Board of Realtors, Multiple Listing Service

TABLE 17

SIZE OF HOMES BY NUMBER OF BEDROOMS, 1986, 1989, 1991
SIZE OF HOMES SOLD IN LIVERMORE
12/85 - 6/86

	Number Sold	% of Total	Average Price
2 OR LESS BDRMS	71	12	$102,620
3 BEDROOMS	353	59	$125,925
4 BEDROOMS	156	26	$156,363
5 OR MORE BDRMS	17	03	$257,516
TOTAL	597		

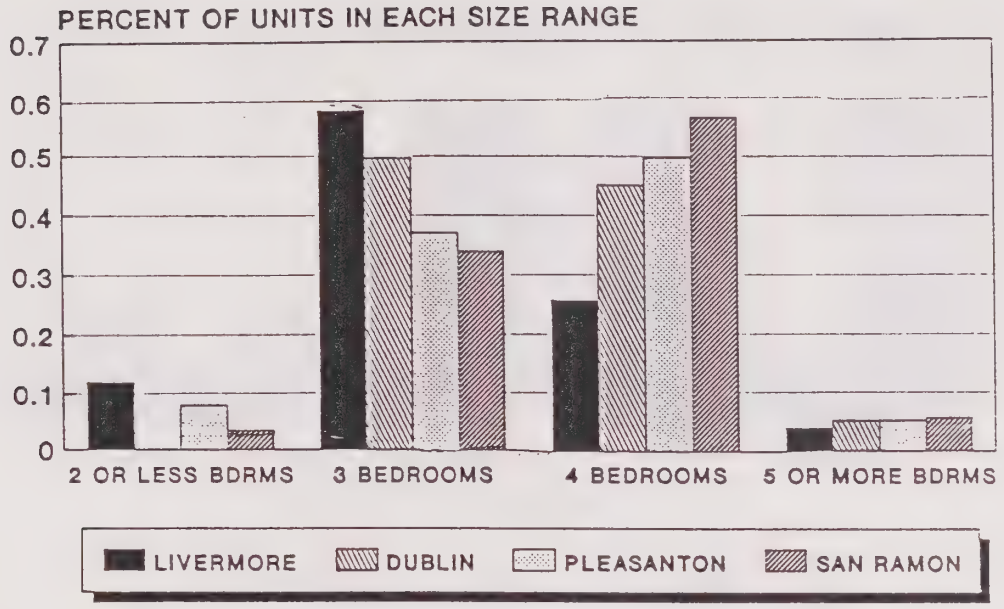
SIZE OF HOMES SOLD IN LIVERMORE
2/28/89 - 8/29/89

	Number Sold	% of Total	Average Price	% change
2 OR LESS BDRMS	69	.12	$159,901	56
3 BEDROOMS	338	.58	$196,233	56
4 BEDROOMS	149	26	$252,492	61
5 OR MORE BDRMS	23	04	$290,731	13
TOTAL	579			

EFFECT OF 1988-1990 HIP APPROVALS ON
ESTIMATED SIZE OF HOMES IN LIVERMORE

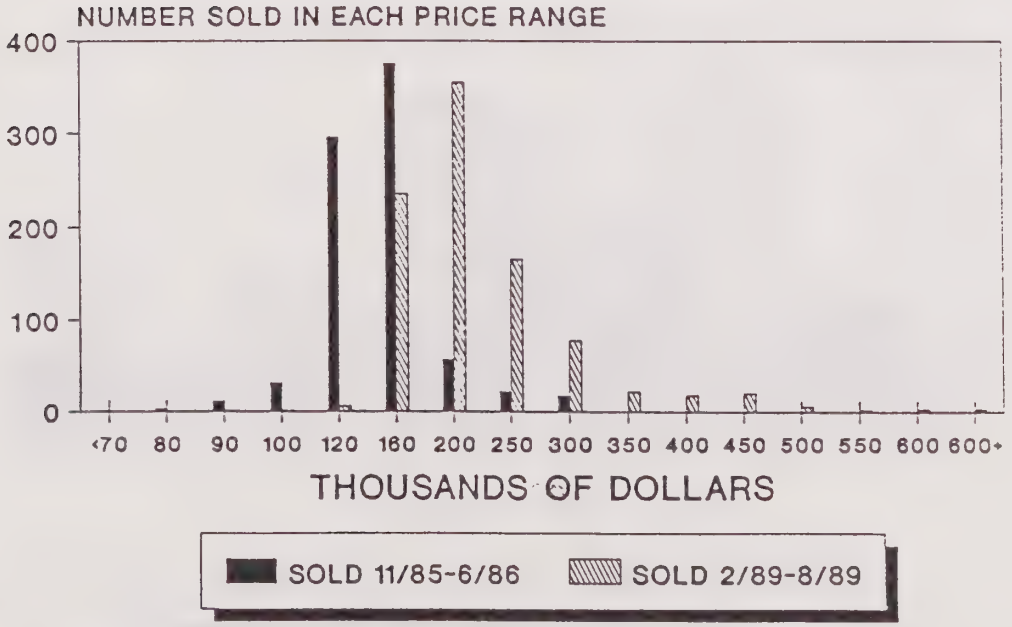
	Estimated # of Units in 1988	%	Number Constructed In Each Size	%	Estimated Units in '91 Dwellings	% of Total
2 OR LESS BDRMS	1,770	12%	0	00	1,770	10
3 BEDROOMS	8,668	58%	592	24	9,260	53
4 BEDROOMS	3,821	26%	1,746	70	5,567	32
5 OR MORE BDRMS	590	4%	151	06	741	04
TOTAL	14,849		2,489		17,338	

HOME SALES BY NUMBER OF BEDROOMS
RESALE HOMES 2/28/89-8/29/89



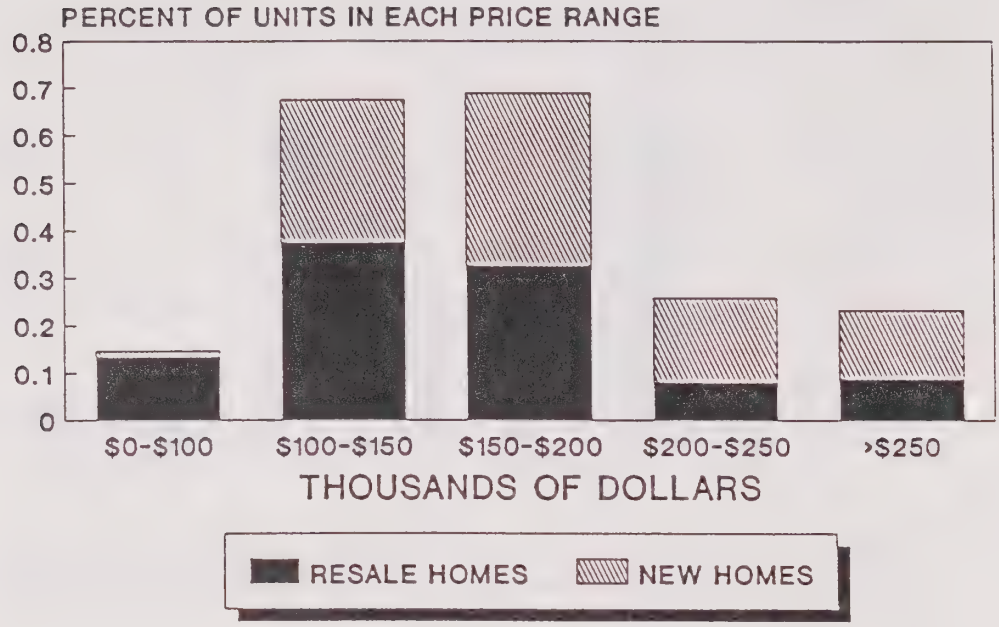
Source: Multiple Listing Service
Figure 16

SALES PRICES OF LIVERMORE HOMES
COMPARISON OF 1986 AND 1989



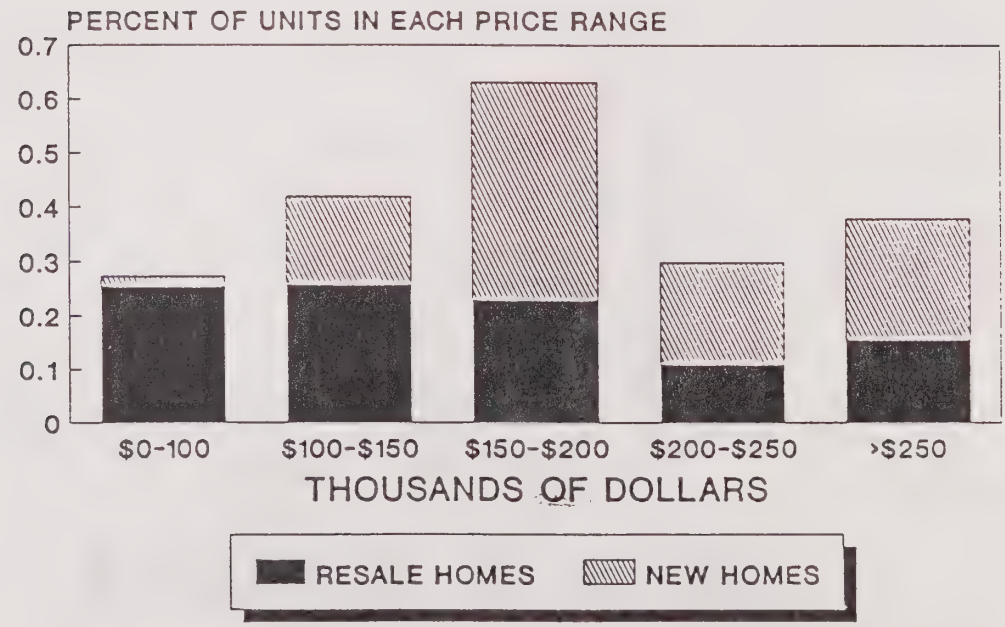
Source: Multiple Listing Service
Figure 17

HOUSING PRICES FOR LIVERMORE HOMES SOLD IN 1988



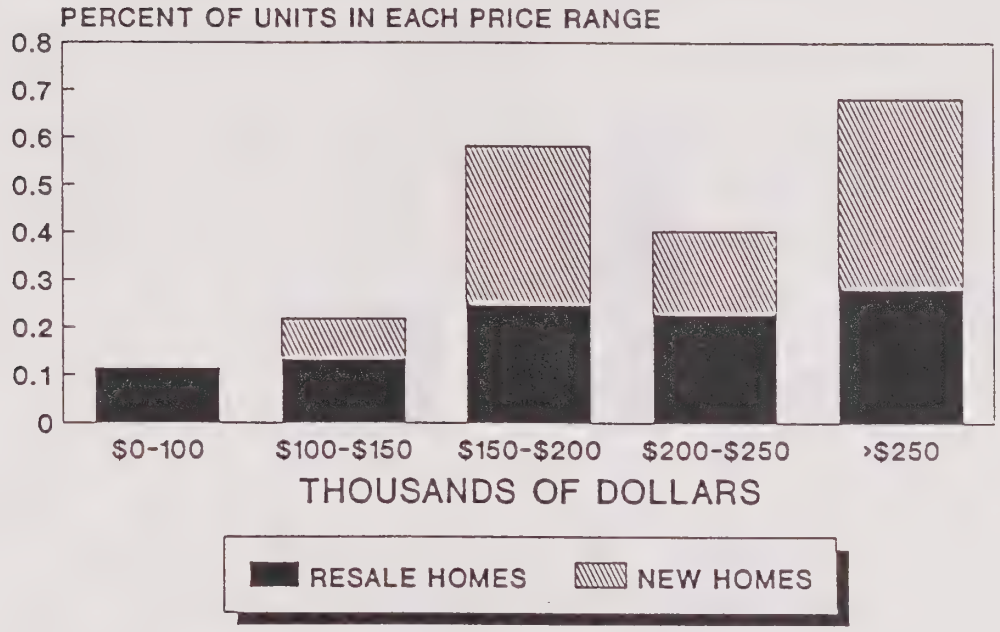
Source: Spear 1988 Purchase Price Survey
Figure 18

HOUSING PRICES FOR ALAMEDA COUNTY HOMES SOLD IN 1988



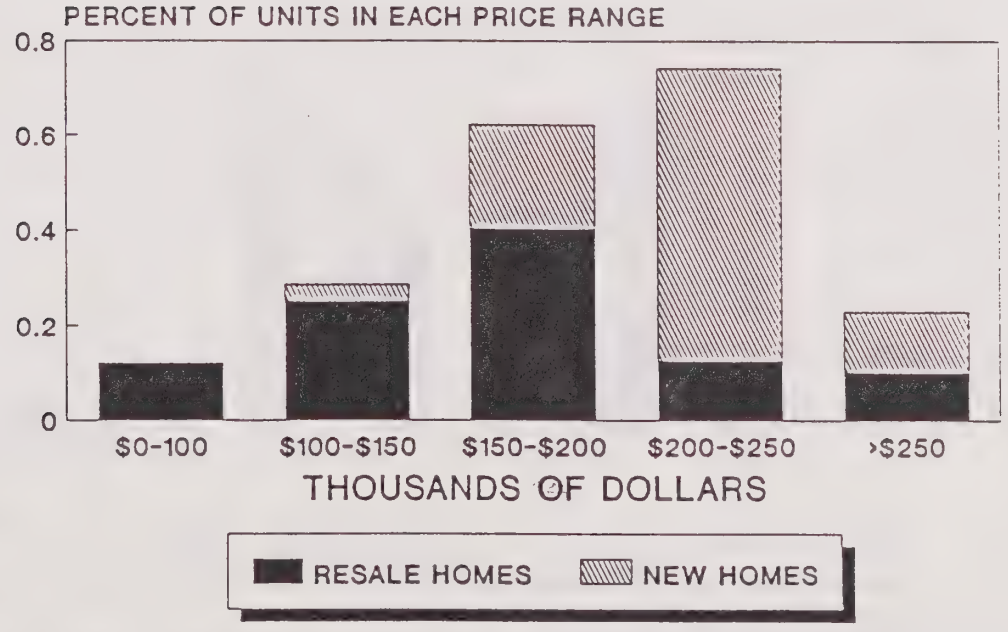
Source: Spear 1988 Housing Price Survey
Figure 19

HOUSING PRICES FOR PLEASANTON HOMES SOLD IN 1988



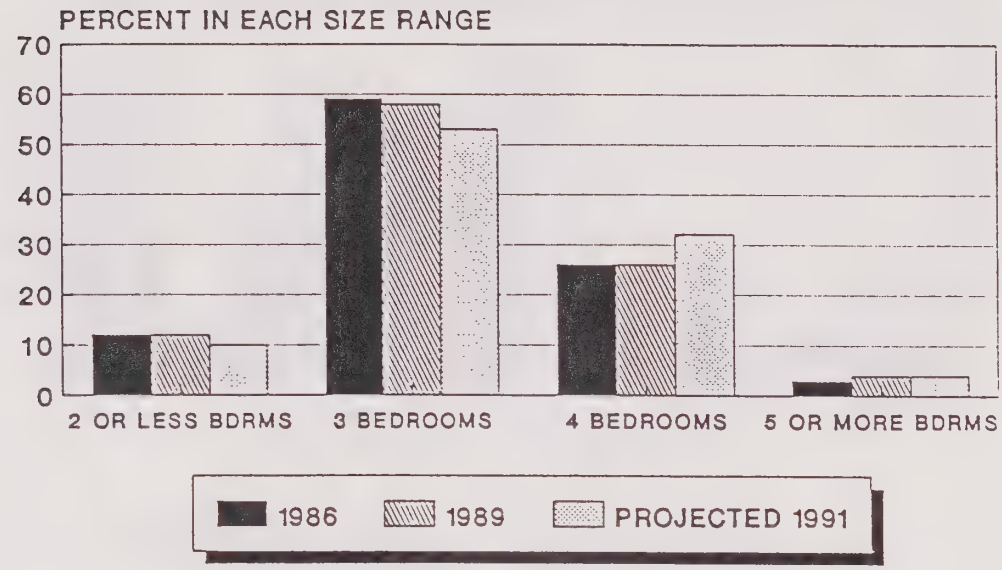
Source: Spear 1988 Housing Price Survey
Figure 20

HOUSING PRICES FOR DUBLIN HOMES SOLD IN 1988



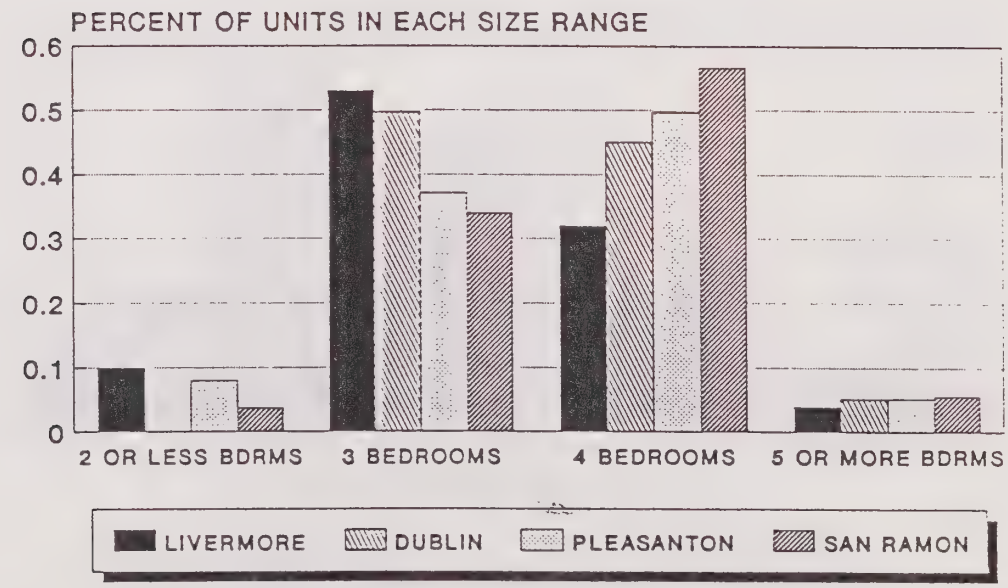
Source: Spear 1988 Housing Price Survey
Figure 21

SIZE OF HOMES IN LIVERMORE
BY NUMBER OF BEDROOMS



Source: Multiple Listing Service and
. Planning Department Projections
Figure 22

HOME SALES BY NUMBER OF BEDROOMS
PROJECTED 1991 SALES



Source: Multiple Listing Service and
. Planning Department Projections
Figure 23

ANALYSIS OF 1988-1990 UNIT ALLOCATIONS

Based on our observations of the program, and on the information contained in the following figures, the Growth Review Committee was unable to identify any particular unit type or size bias. As can be noted from the above mentioned figures, projects of all sizes and unit types are represented in the allocations. A substantial portion of the period's allocations were granted to emphasized projects, but this was a direct goal of the process rather than an unintended side effect. The system of having all types and sizes of projects compete together has provided the City flexibility without unfairly penalizing particular types of projects.

The HIP has also solved the large project bias that the RDP point system created. During the three year period, 24% of the approvals were for projects of 20 units or less and 41% of the approvals were for projects of 50 units or less. Based on observations of the ranking process and the information in Table 4, no particular project size is inherently advantaged or disadvantaged.

The approved projects are distributed throughout the City with no apparent emphasis on any particular area. This is consistent with that fact that no geographic targeting was included in the 1988-1990 program.

GROWTH POLICY REVIEW COMMITTEE RECOMMENDATIONS

Many of the key recommendations of the GPRC have been implemented. These include: the creation of the Growth Review Committee (GRC); creation of a flexible growth rate; averaging the growth rate over a three year period; the ability to modify the growth rate every three years; streamlining the allocation process; the ability to target certain types of housing; an increased emphasis on "upscale" housing in the first three year period; the adoption of Design Guidelines, and the improvement of the aesthetic quality of projects approved under the City's growth management system. Several other GPRC recommendations require ongoing effort or have not yet been implemented. Work is continuing on these projects including open space preservation, Tri-Valley planning, Planning Department staffing, and ongoing recruitment of industrial and retail establishments. Although some of the GPRC's recommendations were modified by later policy decisions, the vast majority have been implemented.

HOUSING ELEMENT GOALS AND POLICIES

One of the goals of the HIP is to implement the City's housing goals and objectives. These goals and objectives are contained in the Housing Element of the General Plan, adopted in July of 1985. Several of the objectives involve encouraging a variety of housing types of housing to meet the needs of all housing types. Although a variety of housing types were approved under the 1988- 1990 HIP, the targeted

categories were not designed to encourage a variety of housing types. Another goal of the housing element is to "Encourage the production and availability of housing at affordable prices". Some production of affordable unit types did take place under the HIP, but the emphasized category sent a clear message that affordability was not a major concern for the 1988-1990 program.

Livermore's fair share of the Regional Housing Need for the period 1980-1990 was projected by ABAG to be 4,311 units. Through 1987 3,182 units were approved. Therefore, 1,189 units remained for the period 1988-1990. A total of 2,107 units were allocated for the 1988-1990 period. In addition, approximately 430 units from exempt projects were approved bring the total 1988-1990 approvals to 2,537. Therefore, for the period 1980-1990 Livermore met 133% of their fair share requirement.

EFFECTS OF THE 1988-1990 HIP APPROVALS

Three thousand units were approved during the 1988-1990 program. Almost one third or 903 units were borrowed from the next Three Year Program. This will limit the flexibility of future decision makers. The severity of limitation will depend on the growth rate chosen for the next program. If, for example, a growth rate of 1.5% were chosen, only 72 units would be available from the 1991-1993 program. The ability to borrow from future years provides useful flexibility to approve larger projects. However, at the same time it limits future opportunity to respond to improving projects or changing City needs. The Growth Review Committee finds that the ability to borrow up to 1.5% severely limits flexibility during the following program and should be used with extreme caution. Alternatives would include borrowing up to 0.5% or 1.0% a year from the next program. The Growth Review Committee does not recommend elimination of the ability to grant next program allocations because of the significant benefits of approving large projects all at once, rather than only building half a project.

The majority of the approved units during the 1988-1990 program were large homes (over 1,900 square feet), on large lots (over 7, 500 square feet). This was the intent of the emphasized category. If the custom lots are combined with the emphasized production homes, almost two thirds of the approvals fall into this category. In addition, emphasized units are clustered near the end of the program so that 86% of the units allocated for 1990 will be emphasized or custom lot. With only 14% of the allocations granted to all other unit types combined in 1990, a significant need could arise in 1991 and beyond for other types of housing.

During the 1988-1990 Three Year Program 29 projects were approved for a total of 3,000 units as noted on the following tables.

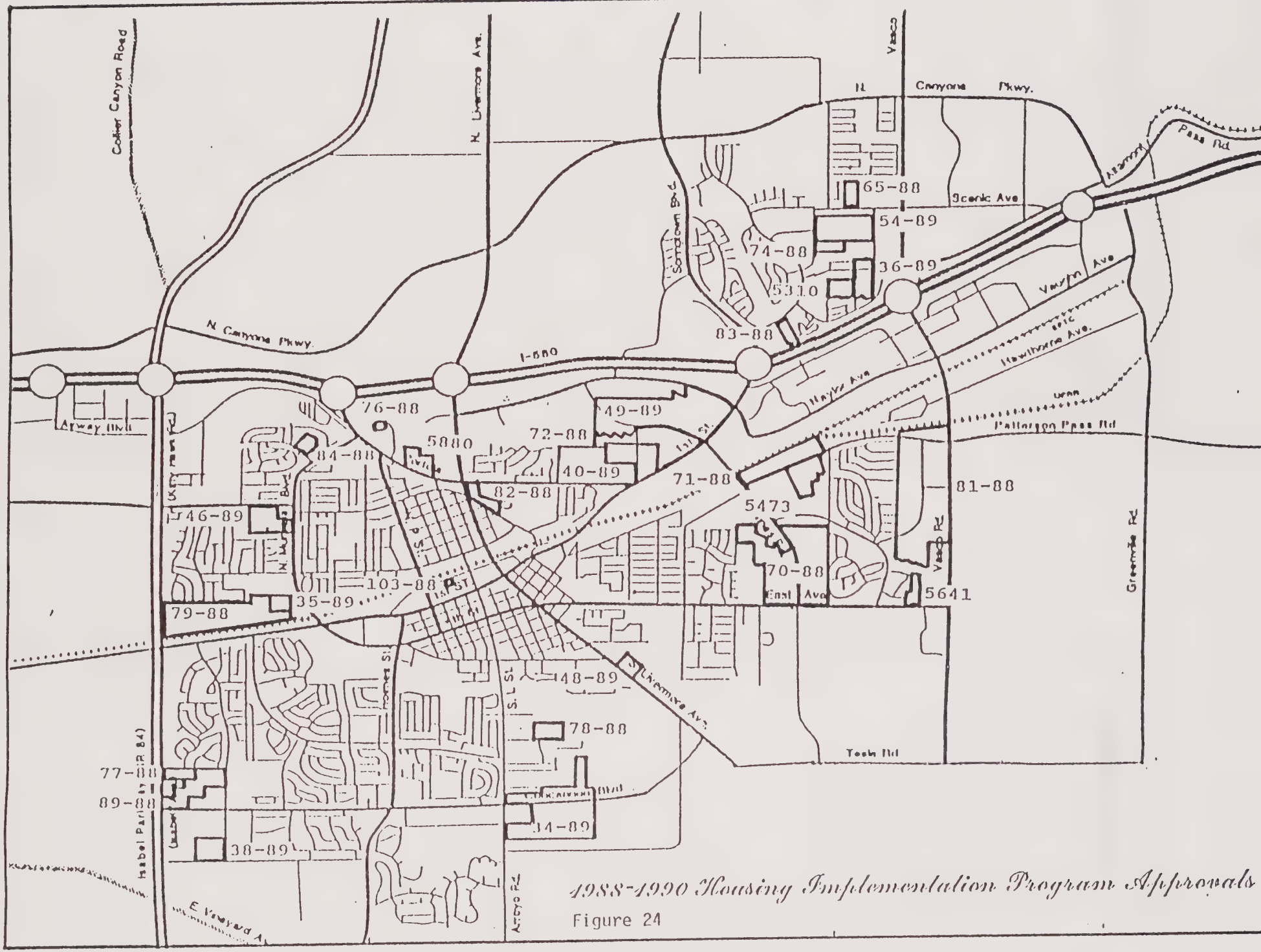
TABLE 18 1988-1990 THREE YEAR HIP APPROVAL SUMMARY

HIP#	PROJECT NAME	DEVELOPER	ALLOCATION '88	'89	'90	'91	'92	'93	TOTAL UNITS
	Available Units		695	701	701	320	325	330	3,072
1988 ALLOCATIONS									
TTM 5641	(Reservation)	K & B	22						22
TTM 5473	(Reservation)	Hivest	75						75
TTM 5473	BROOKMEADOW	McBail/Hivest	68						68
TTM 5880	PORTOLA MEADOWS	Davidon Homes	116						116
TTM 5310	VILLA CHARDONEY	Hofmann/K & B	116						116
1989 ALLOCATIONS									
HIP 8188	STRATFORD PARK	Signature Prop.		119	119	119	118		475
HIP 7288	VALLEY VIEW	Pulte Homes		69	68				137
HIP 7888	CHATEAU GAMAY	Fred Hempy		20					20
HIP 7188	AUTUMN VALLEY	Braddock and Logan		64	63				127
HIP 8988	CALIFORNIA VINT.	Kaufman and Broad		91					91
HIP 7788	ISABEL ESTATES	Remington Homes		30					30
HIP 7588	SCENIC MEADOWS	David Homes		19					19
HIP 7488	ARROWHEAD ESTATES	Davenport/Warren		17					17
HIP 7988	MURRIETA MEADOWS	Damian Limited		89	89				178
HIP 8488	PARK PLACE	Mix\Manning		44					44
HIP 8288	PORTOLA PARK	Fredericks Dev.		96					96
HIP10388	LIVERMORE PARK			2					2
HIP 7088	WINDMILL SPRINGS	Mcbail Company		100	100	86	86	86	458
HIP 8388	DRIFTWOOD APTS.	Western Dev.		18					18
HIP 7688	LIVERMORE DOWNS	Claremont Homes		5					5
1990 ALLOCATIONS									
HIP 3589	STONEYBROOK EST.	G. & B. Stocking			19				19
HIP 4989	VALLEY VIEW II	Pulte Homes			66	66	66	66	264
HIP 5489	SCENIC ARROYO EST.	Ray Herman & Asoc.			86				86
HIP 3489	TAPESTRY	Shea Homes			82	82			164
HIP 4089	PORTOLA GLEN	Warmington Homes			44	44	44		132
HIP 3689	STONECREST PARK	Miklyn Dev.			67				67
HIP 3889	ALDEN ESTATES	Alden Lane Assoc.				30			30
HIP 4889	PARKSIDE PLAZA	ParksidePlazaAssoc			30				30
HIP 4689	MONTICELLO	Standard Pacific			94				94
TOTAL ALLOCATED UNITS			397	783	927	427	314	152	3,000

TABLE 19 UNIT TRANSFER STUDY						
	1988	1989	1990	1991	1992	1993
AVAILABLE UNITS FROM GROWTH RATE	680	701	701	320	325	330
UNITS TRANSFERRED TO YEAR	15	298	226	117	106	0
UNITS AVAILABLE	695	999	927	437	431	330
ALLOCATED UNITS	397	783	927	427	314	152
UNITS TRANSFERRED FROM YEAR	298	216	0	10	117	106
UNITS REMAINING	0	0	0	0	0	72

TABLE 20 1988-1990 THREE YEAR HIP UNIT TYPE ANALYSIS BY YEAR							
UNIT TYPE	ALLOCATIONS						TOTAL UNITS
	1988	1889	1990	1991	1992	1993	
Available units	695	701	701	320	325	330	3,072
APARTMENTS	116	116			18	86	336
CONDOMINIUMS	20						20
TOWNHOMES	100	5	30				135
DUETS	8						8
ZERO LOT LINE		28	28	26	20		102
SINGLE FAMILY DETACHED NON-EMPHASIZED	153	116	72	60	48		449
SINGLE FAMILY DETACHED EMPHASIZED		432	778	311	228	66	1,815
CUSTOM LOTS		86	19	30			135
TOTAL ALLOCATED UNITS	397	783	927	427	314	152	3,000

TABLE 21 1988-1990 THREE YEAR HIP PROJECT SIZE ANALYSIS BY YEAR									
SIZE OF OVERALL PROJECT	NUMBER OF PROJECTS			TOTAL PROJECTS			TOTAL UNITS		
Year of Allocation	1988	1989	1990	#	%	<%	#	%	<%
<10 UNITS NON-EXEMPT	0	2	0	2	7%	7%	7	<1%	1%
10-20 UNITS	0	4	1	5	17%	24%	93	3%	4%
21-50 UNITS	1	2	2	5	17%	41%	156	5%	9%
51-100 UNITS	2	1	3	7	24%	66%	577	19%	28%
101-200 UNITS	2	3	2	7	24%	90%	970	32%	60%
201-500 UNITS	0	2	1	3	10%	100%	1,197	40%	100%
ALLOCATED PROJECTS AND UNITS	5	15	9	29 PROJECTS			3,000 UNITS		



1988-1990 Housing Implementation Program Approvals

Figure 24

APPENDIX

GROWTH RATE

CITY OF LIVERMORE
Population History

YEAR	POPULATION	HOUSING UNITS TOTAL	HOUSING UNITS OCCUPIED	HOUSING UNITS % VACANT	SOURCE
1876	830				U.S. Census
1880	855				U.S. Census
1890	1,391				U.S. Census
1900	1,493				U.S. Census
1910	2,030				U.S. Census
1920	1,916				U.S. Census
1930	3,119				U.S. Census
1940	2,885				U.S. Census
1944	3,622				
1950	4,364				U.S. Census
1953	7,023				
1955	10,163				
1957	12,595				
1960	16,058	5,093			U.S. Census
1962	19,200	6,210			State Estimate
1963	20,950	6,750			State Estimate
1964	23,400	7,250			State Estimate
1965	25,300	8,025			State Estimate
1966	28,550	8,900			State Estimate
1967	30,849	9,452			State Estimate
1968	32,700	9,700			State Estimate
1969	35,300	10,400			State Estimate
1970	37,300				State Estimate
1970	37,703	11,431	10,867	4.93	U.S. Census
1971	41,000	12,320			State Estimate
1972	43,750	13,045			State Estimate
1973	47,650	14,425			State Estimate
1974	46,768				State Estimate
1975	48,349	15,794	14,720	5.25	State Census
1976	48,850	16,280			State Estimate
1977	48,950				State Estimate
1978	49,155				State Estimate
1979	48,400				State Estimate
1980	48,150				State Estimate
1980	48,349	16,636	16,230	2.44	U.S. Census
1981	48,465				State Estimate
1982	49,014	17,156			State Estimate
1983	50,497	17,504			State Estimate
1984	51,946	17,947			State Estimate
1985	52,113	18,306	17,817	2.67	State Estimate
1986	53,981	18,832	18,426	2.16	State Estimate
1987	54,422	19,435	18,828	3.12	State Estimate
1988	56,445	19,983	19,643	1.70	State Estimate
1989	56,820	20,551	20,085	2.27	State Estimate

89LH2\citypop.1

PROJECTED POPULATION
AT VARIOUS GROWTH RATES

	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%
1990	59,732	59,732	59,732	59,732	59,732	59,732	59,732	59,732
1991	60,628	60,927	61,225	61,524	61,823	62,121	62,420	62,719
1992	61,537	62,145	62,756	63,370	63,986	64,606	65,229	65,855
1993	62,460	63,388	64,325	65,271	66,226	67,190	68,164	69,147
1994	63,397	64,656	65,933	67,229	68,544	69,878	71,232	72,605
1995	64,348	65,949	67,581	69,246	70,943	72,673	74,437	76,235
1996	65,314	67,268	69,271	71,323	73,426	75,580	77,787	80,047
1997	66,293	68,613	71,003	73,463	75,996	78,603	81,287	84,049
1998	67,288	69,986	72,778	75,667	78,656	81,747	84,945	88,251
1999	68,297	71,385	74,597	77,937	81,409	85,017	88,767	92,664
2000	69,321	72,813	76,462	80,275	84,258	88,418	92,762	97,297
2001	70,361	74,269	78,374	82,683	87,207	91,955	96,936	102,162
2002	71,417	75,755	80,333	85,164	90,259	95,633	101,298	107,270
2003	72,488	77,270	82,341	87,718	93,418	99,458	105,857	112,634
2004	73,575	78,815	84,400	90,350	96,688	103,436	110,620	118,265
2005	74,679	80,391	86,510	93,061	100,072	107,574	115,598	124,179
2006	75,799	81,999	88,672	95,852	103,574	111,877	120,800	130,387
2007	76,936	83,639	90,889	98,728	107,200	116,352	126,236	136,907
2008	78,090	85,312	93,162	101,690	110,952	121,006	131,917	143,752
2009	79,261	87,018	95,491	104,740	114,835	125,846	137,853	150,940
2010	80,450	88,759	97,878	107,883	118,854	130,880	144,057	158,487
2011	81,657	90,534	100,325	111,119	123,014	136,115	150,539	166,411
2012	82,882	92,344	102,833	114,453	127,319	141,560	157,313	174,732
2013	84,125	94,191	105,404	117,886	131,776	147,222	164,392	183,468
2014	85,387	96,075	108,039	121,423	136,388	153,111	171,790	192,642
2015	86,668	97,997	110,740	125,066	141,161	159,236	179,521	202,274

PROJECTED NUMBER OF HOUSING UNITS
AT VARIOUS GROWTH RATES

	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%
1989	20,551	20,551	20,551	20,551	20,551	20,551	20,551	20,551
1990	20,859	20,962	21,065	21,168	21,270	21,373	21,476	21,579
1991	21,172	21,381	21,591	21,803	22,015	22,228	22,442	22,657
1992	21,490	21,809	22,131	22,457	22,785	23,117	23,452	23,790
1993	21,812	22,245	22,684	23,130	23,583	24,042	24,507	24,980
1994	22,139	22,690	23,252	23,824	24,408	25,003	25,610	26,229
1995	22,471	23,144	23,833	24,539	25,262	26,004	26,763	27,540
1996	22,808	23,607	24,429	25,275	26,147	27,044	27,967	28,917
1997	23,151	24,079	25,039	26,033	27,062	28,125	29,226	30,363
1998	23,498	24,560	25,665	26,814	28,009	29,250	30,541	31,881
1999	23,850	25,052	26,307	27,619	28,989	30,421	31,915	33,475
2000	24,208	25,553	26,965	28,447	30,004	31,637	33,351	35,149
2001	24,571	26,064	27,639	29,301	31,054	32,903	34,852	36,907
2002	24,940	26,585	28,330	30,180	32,141	34,219	36,420	38,752
2003	25,314	27,117	29,038	31,085	33,266	35,588	38,059	40,690
2004	25,694	27,659	29,764	32,018	34,430	37,011	39,772	42,724
2005	26,079	28,212	30,508	32,978	35,635	38,492	41,562	44,860
2006	26,470	28,776	31,271	33,968	36,882	40,031	43,432	47,103
2007	26,867	29,352	32,053	34,987	38,173	41,633	45,386	49,458
2008	27,270	29,939	32,854	36,036	39,509	43,298	47,429	51,931
2009	27,679	30,538	33,675	37,117	40,892	45,030	49,563	54,528
2010	28,094	31,148	34,517	38,231	42,323	46,831	51,793	57,254
2011	28,516	31,771	35,380	39,378	43,805	48,704	54,124	60,117
2012	28,944	32,407	36,265	40,559	45,338	50,652	56,560	63,123
2013	29,378	33,055	37,171	41,776	46,925	52,678	59,105	66,279
2014	29,818	33,716	38,100	43,029	48,567	54,786	61,765	69,593

WASTEWATER CAPACITY

ADDITIONAL RESIDENTIAL SEWER FLOWS

AT VARIOUS GROWTH RATES

	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	RESIDENTIAL CAPACITY
1989	0	0	0	0	0	0	0	0	294,000
1990	68,743	91,657	114,572	137,486	160,401	183,315	206,229	229,144	819,000
1991	138,517	185,148	232,008	279,097	326,415	373,962	421,739	469,744	819,000
1992	209,338	280,508	352,380	424,956	498,240	572,236	646,946	722,375	819,000
1993	281,221	377,776	475,761	575,191	676,079	778,440	882,288	987,638	1,419,000
1994	354,183	476,989	602,227	729,933	860,143	992,893	1,128,221	1,266,163	1,419,000
1995	428,239	578,186	731,855	889,317	1,050,648	1,215,923	1,385,220	1,558,615	1,419,000
1996	503,405	681,408	864,723	1,053,483	1,247,821	1,447,875	1,653,784	1,865,690	1,419,000
1997	579,699	786,693	1,000,913	1,222,573	1,451,896	1,689,105	1,934,434	2,188,118	1,419,000
1998	657,138	894,084	1,140,507	1,396,737	1,663,112	1,939,984	2,227,712	2,526,667	1,419,000
1999	735,738	1,003,624	1,283,592	1,576,125	1,881,722	2,200,899	2,534,189	2,882,144	1,419,000
2000	815,517	1,115,354	1,430,254	1,760,895	2,107,983	2,472,249	2,854,456	3,255,395	1,419,000
2001	896,493	1,229,318	1,580,582	1,951,208	2,342,163	2,754,454	3,189,136	3,647,308	1,419,000
2002	978,684	1,345,562	1,734,668	2,147,231	2,584,539	3,047,947	3,538,877	4,058,818	1,419,000
2003	1,062,107	1,464,131	1,892,607	2,349,134	2,835,398	3,353,180	3,904,355	4,490,902	1,419,000
2004	1,146,782	1,585,071	2,054,494	2,557,094	3,095,038	3,670,622	4,286,281	4,944,591	1,419,000
2005	1,232,727	1,708,430	2,220,428	2,771,293	3,363,765	4,000,762	4,685,393	5,420,964	1,419,000
2006	1,319,961	1,834,256	2,390,510	2,991,918	3,641,897	4,344,108	5,102,465	5,921,156	1,419,000
2007	1,408,503	1,962,598	2,564,845	3,219,162	3,929,764	4,701,187	5,538,305	6,446,357	1,419,000
2008	1,498,374	2,093,508	2,743,538	3,453,223	4,227,706	5,072,549	5,993,758	6,997,819	1,419,000
2009	1,589,592	2,227,035	2,926,698	3,694,305	4,536,077	5,458,766	6,469,706	7,576,853	1,419,000
2010	1,682,179	2,363,233	3,114,437	3,942,621	4,855,240	5,860,432	6,967,072	8,184,840	1,419,000
2011	1,776,155	2,502,155	3,306,870	4,198,386	5,185,574	6,278,164	7,486,820	8,823,225	1,419,000
2012	1,871,541	2,643,856	3,504,114	4,461,823	5,527,469	6,712,605	8,029,956	9,493,530	1,419,000
2013	1,968,357	2,788,391	3,706,288	4,733,164	5,881,331	7,164,424	8,597,533	10,197,350	1,419,000
2014	2,066,625	2,935,816	3,913,517	5,012,645	6,247,579	7,634,316	9,190,651	10,936,362	1,419,000

ESTIMATED INDUSTRIAL AND COMMERCIAL SEWER COMMITMENT
FOR APPROVED UNFINISHED PROJECTS
September 1, 1989

PERMIT	PROJECT/LOCATION	USE	APPROVED	COMPLETE	REMAINING	G/D/ 1000sf	GAL/ DAY	EXPIRES
[illegible]-83	SICKLES/BLUEBELL	COM	77,022	43,872	33,150	76	2,519	'3-31-90
164-85	RAFFELS/SOFRONT	M-180	163,600	0	163,600	350	57,260	'12-17-89
67-86	BERRIER/PRESTON	IND	14,400	0	14,400	180	2,592	'8-21-88
200-86	WILLIS/PRESTON	IND	9,293	0	9,293	180	1,673	'1-16-90
201-86	WILLIS/PRESTON	IND	8,320	0	8,320	180	1,498	'1-16-90
35-87	SCHOOLER/RAILROAD	COM	3,592	0	3,592	76	273	'5-19-90
126-87	HEXCEL/TREVARNO	IND	3,774	0	3,774	180	679	'11-16-89
146-87	WILLIS/PRESTON	IND	12,064	0	12,064	180	2,172	3-1-90
161-87	HERNANDEZ/OLD FIRST	COM	12,400	0	12,400	76	942	2-4-90
10-88	GOLDN GT DRWL/4001 FIRST	COM	20,684	0	20,684	76	1,572	4-19-90
12-88	RINKER/PRESTON	IND	118,884	0	118,884	180	21,399	6-12-90
33-88	CHIU/1000AIRWAY(152suites)	HOTEL	62,700	0	62,700	350	21,945	5-9-90
38-88	CAL-BAY/212RICKENBACKER	IND	5,742	0	5,742	180	1,034	5-26-90
42-88	ORCHARD/VAUGH@GREENVILLE	IND	242,208	0	242,208	180	43,597	5-3-90
43-88	BAUER/NAYLOR	IND	75,720	0	75,720	180	13,630	8-2-90
129-88	ADV. POOL/2127 SO. VASCO	IND	16,000	0	16,000	180	2,880	9-16-90
132-88	VASCO PLAZA/VASCO@SCENIC	COM	121,895	0	121,895	76	9,264	11-14-90
137-88	TRINITYBAPTIST/5570LIVINA	CHURCH	25,000	0	25,000	180	4,500	10-4-90
151-88	FOSTER EXCVING/1020SHANON	IND	2,600	0	2,600	180	468	10-12-90
152-88	F.O.C./LAS POSITAS	COM	200,225	0	200,225	76	15,217	11-28-90
157-88	KAISER/300 PULLMAN	IND	388,000	0	388,000	180	69,840	11-1-90
161-88	PUBLIC STORAGE/4TH@INMAN	IND	56,800	0	56,800	180	10,224	5-12-91
164-88	DIABLOVENTURES/LASPOSITAS	COM	263,013	0	263,013	76	19,989	8-7-91
172-88	WANG\550 CONSITUTION	IND	36,000	0	36,000	180	6,480	12-19-90
[illegible]-88	BALCH/5813 LA RIBERA	IND	7,356	0	7,356	180	1,324	12-28-90
[illegible]-88	MAGNATE/3330GARDELLA	COM/RES		0	0		0	2-7-91
186-88	LINCOLNALTAMONT/MARATHON	IND	390,600	0	390,600	180	70,308	1-10-91
10-89	ESTRADA/203 SO. S	OFFICE	6,000	0	6,000		0	3-28-91
12-89	BALCH/6630-6672PATTERSON	IND	34,080	0	34,080	180	6,134	5-4-91
26-89	WASECAKUBOTA/EAST AIRWAY	COM	6,760	0	6,760	76	514	4-18-91
63-89	FLAYAC/NO.CANYONS PRKWY.	COM/REST	31,211	0	31,211	76	2,372	5-16-91
64-89	WHITE OAK LNDSCP/LARIBERA	IND	5,600	0	5,600	180	1,008	5-1-91
74-89	HEXCEL/10 TREVARNO RD.	IND	34,200	0	34,200	180	6,156	
75-89	F&P PROPERTIES/FULLER RD.	IND	21,500	0	21,500	180	3,870	6-2-91
79-89	RPM INV./5717 BRISA	IND	12,480	0	12,480	180	2,246	6-29-91
81-89	FINDLETON/PATTERSON PASS	IND	19,200	0	19,200	180	3,456	5-30-91
83-89	PELL DEV/FIRST@LASPOSITAS	COM	126,357	0	126,357	76	9,603	8-7-91
84-89	MICHAELIS/LINDBERG	OFFICE	21,000	0	21,000	76	1,596	7-6-91
87-89	BRISA PROP/BRISA STREET	IND	10,000	0	10,000	180	1,800	6-20-91
90-89	SYLVESTER/FIRST @ SO. P	COM	11,400	0	11,400	76	866	7-6-91
101-89	CARANTHIMAS/4200 EAST	OFFICE	700	0	700	76	53	7-17-91
102-89	INTEL/250 N. MINES	IND	2,000	0	2,000	180	360	6-9-91
106-89	JRC PROP/BRISA@LARIBERA	IND	18,665	0	18,665	180	3,360	7-25-89
PROPOSED								
107-89	ADVECO DEV/RAILROAD @ L	COM	30,600		30,600	76	2,326	
109-89	LOUNDSBURY/5936 EAST	IND	150,000		150,000	180	27,000	
118-89	ARCH.NETWORK/3360 FIRST	COM	5,000		5,000	76	380	
120-89	DILLON/VASCO @ NO.FRONT	COM	2,820		2,820	76	214	
125-89	LIV.AIR.BUSPK/494LINDBERG	IND	3,888		3,888	180	700	
[illegible]-89	CITY/3589 PACIFIC	OFFICE	6,000		6,000	76	456	
[illegible]-89	LIV.VET.HOSP/2494RAILROAD	COM	480		480	76	36	
134-89	LARPD,CITY/WENTE@STADIUM	IND	52,400		52,400	180	9,432	
138-89	EQUITY CONCEPT/RAILROAD	COM	60,000		60,000	76	4,560	
	TOTAL BUILDING AREA		3,010,233	43,872	2,966,361			
	ESTIMATED COMMITTED GALS/D						471,778	

Medium- and Long-Range Allocation

(a) The City shall seek a reasonable balance among the needs of the community for housing, commerce, industry, and public and private institutional facilities and services. The City shall allocate any capacity added as a result of expansion of the Water Reclamation Plant as follows: not less than 50 percent of the expanded capacity shall be allocated to non-residential uses, not less than 10 percent shall be allocated to low income housing, and the remainder may be utilized for other housing. (Reso. 313-79, 10-29-79).

In keeping with the City's urban expansion policy of giving priority to filling in lands within the City that have been bypassed by earlier development:

(b) When the capacity of the Water Reclamation Plant has been increased beyond the present five mgd, first priority in allocating such added capacity shall be for uses proposed on undeveloped land within the existing urban pattern which was previously bypassed for development.

The purpose of Policy No. (b) is to achieve a pattern of orderly development which will minimize the adverse impact of growth on the environmental resources of the area and permit the most efficient and economical system of urban services. To further achieve this end:

(c) The City shall reserve sufficient Water Reclamation Plant treatment capacity to accommodate full development of such bypassed lands that presently are within the existing urban pattern. The reserve shall be determined by the City staff with the approval of the City Council and shall be based upon the approximate discharge requirements of the various development proposals of the General Plan. A review of the unused reserve shall be made annually to reestablish the capacity that should be retained as a reserve during the following year. Allocation of capacity to bypassed land within the unincorporated area shall be subject to annexation of that land to the City.

(d) The City shall further limit the allocation of that portion of the added capacity that is in addition to the reserve established under Policy No. (c) to those development proposals which are consistent with all other policies and proposals of the General Plan and which are within the service area of the sewer trunkline collection system as determined by the City Director of Public Works and approved by the City Council.

WATER QUANTITY AND QUALITY

ZONE 7 WATER OPERATIONS
COMPARISON OF 1986 THROUGH 1989
TOTAL MONTHLY TREATED WATER USE IN MILLION GALLONS
(ZONE 7 DELIVERIES AND APPLICANT PUMPING) *

1989

	DSRSD				PLEASANTON				CWS				LIVERMORE				VA				TOTAL			
MONTH	1986	1987	1988	1989	1986	1987	1988	1989	1986	1987	1988	1989	1986	1987	1988	1989	1986	1987	1988	1989	1986	1987	1988	1989
JAN	58	66	57	62	149	170	163	184	121	129	129	138	39	42	44	48	2	2	3	2	369	409	396	434
FEB	51	58	68	56	132	156	225	176	111	110	158	126	34	41	60	48	3	2	3	2	331	367	514	408
MAR	64	68	89	59	167	192	304	189	142	134	206	136	47	45	77	52	3	2	5	2	423	441	681	437
APR	87	100	93	92	267	347	308	309	203	243	207	212	65	79	79	81	5	6	4	6	627	775	691	699
MAY	115	118	104	124	393	440	381	437	278	313	251	274	93	102	97	105	4	8	7	6	883	981	840	947
JUN	133	130	120	146	463	504	448	536	330	344	299	335	104	114	114	133	8	8	8	8	1038	1100	989	1158
JUL	149	134	147	166	514	531	565	609	371	355	364	375	124	121	138	147	9	9	10	9	1167	1150	1223	1305
AUG	142	145	144	159	490	532	551	589	342	358	347	NA	106	119	130	142	8	11	10	9	1088	1165	1182	NA
SEP	111	124	132		364	446	492		303	315	311		81	114	121		7	7	8		866	1006	1065	
OCT	105	104	102		231	357	395		311	260	242		82	89	92		6	5	5		735	815	836	
NOV	89	65	78		257	188	236		185	136	157		66	50	61		5	2	5		602	441	536	
DEC	69	58	62		189	157	209		114	127	138		52	46	54		2	2	5		426	390	468	
CURRENT TOTAL	799	819	822	864	2575	2871	2944	3030	1898	1987	1962	NA	612	663	738	756	42	48	50	44	5926	6388	6516	NA
YEARLY TOTAL	1173	1170	1195	864	3616	4019	4277	3030	2811	2825	2810	NA	893	962	1066	756	62	64	73	44	8555	9040	9421	

* Totals may differ from sum of monthly amounts due to rounding.

DATE PREPARED: 09/19/89

ZONE 7
ALAMEDA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

ENGINEER'S REPORT
ON
WATER SUPPLY AND WATER QUALITY IMPROVEMENTS

I. INTRODUCTION

Zone 7 of Alameda County Flood Control and Water Conservation District was formed by voter approval in 1957, and encompasses an area of some 425 square miles comprising the southeastern portion of Alameda County (see Figure II.D.1 for Zone 7 Boundary Map). The Zone's activities are primarily concentrated within the Livermore-Amador Valley in the Cities of Livermore, Pleasanton, and Dublin and the adjacent unincorporated areas. Principal activities of the Zone include water supply, water resources management, flood control, and wastewater management.

At the time of its formation, Zone 7 was faced with a severe groundwater overdraft, a deficiency in the local water supplies for further industrial and agricultural development, and poor drainage and flood hazards. To deal with the water supply problems, the Zone, in 1961, entered into a water supply contract with the State of California Department of Water Resources for water deliveries from the State Water Project (SWP). General Obligation Bonds for the SWP were approved in 1960 by the voters of the State to provide financing for increasing water supply needs throughout the State. The SWP is a system of water conservation and conveyance facilities which supply municipal, industrial and agricultural waters to an area with a population of approximately two-thirds of the entire State including about two million people in the San Francisco Bay Area. The State Water Project consists of the California Aqueduct, a number of smaller branch aqueducts (such as the South Bay Aqueduct [SBA]), storage reservoirs (such as Lake Oroville and San Luis Reservoir), pumping plants and other miscellaneous facilities. The California Aqueduct begins in the Delta near Byron and extends southerly over 400 miles to Southern California. It has 30 customers, the two largest being the Metropolitan Water District of Southern California and the Kern County Water Agency. In the South Bay Area there are three customers of the State Water Project, all taking water from the SBA. They are the Alameda County Water District serving the cities of Fremont, Union City and Newark; the Santa Clara Valley Water District serving most of Santa Clara County; and Zone 7.

Since its inception, the Zone has had two major periods of construction of water supply facilities. The first was the early 1960's and the second was in the mid 1970's. The aptly named Projects No. 1 and 2 revolved around the construction of the Zone's two water treatment plants. The initial Zone 7 system was constructed from 1960 to 1963, and consisted of the Patterson Pass Water Treatment Plant (originally called the Zone No. 7

Water Treatment Plant), the Livermore Pipeline, the Santa Rita-Dougherty Pipeline, and the reactivation of Hopyard Wellfield (formerly Camp Parks Wellfield No. 2). After its completion, this system supplied water to the Dublin and Livermore area. With the completion of the Mocho Wellfield in 1966-67, and water contract negotiations with Pleasanton in 1968, water was also supplied to Pleasanton. By 1969, it became apparent that not only would additional production capacity be needed, but also a need to supply higher quality SBA imported water to Pleasanton and Dublin. At that time residents in those two communities received only harder local groundwater. Livermore had always received the softer and higher quality SBA imported water. Therefore, Project No. 2 was proposed, consisting of the Del Valle Water Treatment Plant (DVWTP), and the Del Valle-Livermore and Cross-Valley Pipelines. Revenue bond financing of this new system was approved in 1972 and by 1975 the additional facilities were completed for supplying treated surface water to all three cities.

Today, with increasing water demands and increasingly stringent water quality requirements, the Zone is faced with the decision to again expand its system to meet projected water needs and to construct additional facilities that will enhance water quality. The analysis of water demands, costs, financing, and the need for and description of the various facilities were presented to the Zone 7 Board of Directors at the September and October 1985 meetings in a series of two reports: 1985 Planning Update-Parts 1 and 2. These reports are important reference documents to this Engineer's Report.

Part 1 of the 1985 Update dealt with the issues of water supply, demand and production. Population growth and per capita water demands were also addressed. One of the conclusions of that report was that the Valley is in transition from an almost purely "bedroom" community to a more urbanized area with a greater percentage of commercial and light industrial development. The quality of the new development is generally upscaled and aesthetically enhanced by the use of more intensive landscaping and lawn area. This has contributed to the increasing overall per capita water demands. It was also concluded that there was a need for new production capacity some of which would come from new wells. There would be a mild reduction in overall water quality during the summer months during times when wells are used for peaking.

The facilities that were on the approved Capital Projects Priority List ("Alternate 2" facilities in Part 2 of the Planning Update) have been reviewed again in terms of appropriateness, timing, and cost. Analyses have been made of the water supply and demand balance, production requirements, and the capability of the Capital Expansion, Improvement, and Replacement (EIR) Fund to adequately finance the proposed improvements. The results of the analyses are contained in the next section of this report.

One of the Zone's primary objectives is to provide a highly reliable potable water supply to the residents of the Valley in both quality and quantity. The Zone's actions in the past have been consistent with that principle and presumably will continue to do so. This is the criterion upon

which Zone 7 water supply planning is based. However, it is likely, with greater understanding of the issues related to water quality, that the Zone will need to commit itself to a higher enhanced level of water service in the future.

II. PLANNING

A. Water Supply, Demand, and Production

Supply. Within the Zone 7 service area there are three basic sources of water supply (imported surface water, local surface water, and local groundwater). The primary source is the South Bay Aqueduct which supplies surface water from the Sacramento-San Joaquin Delta. Zone 7's maximum annual entitlement from the SBA is 46,000 acre-feet per annum (AFA) which becomes fully developed in 1997. Although the Zone's 1986 contract entitlement is 28,000 AFA, only 23,600 AF was scheduled as that amount was the total estimated need. It appears that the projected needs over the next several years will be less than the contract entitlement amounts.

Ever since the California electorate turned down Proposition 9 (SB 200 facilities) in 1982, there has been some question as to just how much water the Zone or any other State Water Project contractor can expect each year. Initially, the California Department of Water Resources (DWR) used as the basis for supply the concept of "dry," "average," or "wet" hydrological conditions. The 1985 Planning Update based the expected SBA supply in terms of the average hydrological conditions. In 1986, DWR changed its criteria for maximum available supply assuming no additional facilities are constructed. This is shown graphically in Figure 9 on page 86 of DWR Bulletin 132-86. Using DWR's "1986 Rule Curve Operating Criteria" and the 50th percentile for supply, it can be deduced that under current conditions, about 31,000 AFA would be available to Zone 7 about 50% of the time. Including 8,000 AFA local surface water supply, the 39,000 AFA corresponds to an adequate supply through 2006. The 50% criteria is used because the Zone's groundwater basin allows excess waters to be recharged during wet years and greater than normal withdrawals during dry years.

Note that the planning phase of this report covers the period 1987-2010 (not 1987-2006), which is only four years longer. Even so, it is reasonable to assume that DWR will find ways to incrementally fulfill its longterm contractual commitments. This report is based upon that assumption.

The second source of supply is locally conserved runoff into Lake Del Valle. The average annual volume of water available to the Zone under its Del Valle water rights is around 8,000 AFA.

The third source of supply is the local groundwater basin. It is estimated that the yield of the basin under current conditions is around 12,000 AFA. Although this yield is essentially fully utilized by the Zone's retailers and other Valley users, the Zone could borrow on groundwater reserves during dry periods and replace it by recharging surplus water during wet periods.

Demand. Projections for treated water demand are largely based on estimates of population growth (see Figure II.D.2) and customers' treated water delivery schedules for the period 1987-1991. The projected water demands for the Zone 7 service area are shown in Figure II.D.5 and its graphical representation (Figure II.D.6). Refer to Figure II.D.3 and II.D.4 for maps of the Zone's retailers' service areas and of the Zone's existing facilities, respectively. The planning departments of the Cities of Dublin, Livermore, and Pleasanton were consulted in November and December of 1986 to obtain their very latest population projections. These up-to-date projections are used in this report, and are consistent with the latest general plans of the three cities. Note that the demand projections by the Zone's treated water customers are down substantially from last year, amounting to a 4.5% reduction in 1987 dropping all the way to a 12.4% reduction in 1990.

From 1987 through 1991, the Zone's projected treated water demand is based solely on its customers' treated water delivery schedules. Added to the Zone's projected treated water demands is the approximately 6,600 AFA "IQ" (Independent Quota) combined total for the California Water Service Company and the City of Pleasanton to give the total treated water demand within the Zone's service area. After 1991, the total treated water demand is projected to increase at the same rate as the increase in population. The projected Zone 7 treated water demands for the years 1992-2010 are calculated by taking the total demands calculated above minus 6,600 AFA.

Projected Zone 7 untreated water demands for the years 1987-1991 are based solely on the customers' delivery schedules. From 1992-2010 it is assumed these demands will remain constant at 2,600 AFA.

The projected maximum daily treated water demands on the Zone's system are estimated by taking the projected average daily demands and multiplying by an assumed peaking factor of 2.0, which is based on actual historical peaking factors. Actual and projected maximum daily demands are shown in Figure II.D.7 and graphically in Figure II.D.8.

An interesting aspect of the water demand analysis is the finding as originally presented in a staff report to the Zone Board at the July 16, 1986 meeting, that the Zone's agricultural and untreated water customers will have to prepare themselves to soon begin planning to take the water more uniformly from the SBA during the growing season. The reason is that the Zone is limited to a maximum total capacity in the SBA of 55 million gallons per day (MGD) or 11% of the Zone's maximum annual entitlement in any one month. Until now, since no more than about 30 MGD (peak) has been taken by the two treatment plants, there has been excess SBA capacity available for random peak untreated water demands. In 1986, the Zone's untreated water customers had a combined peak demand on the SBA of about 18 MGD. Using a peak flow of 11% of their yearly scheduled amount as a basis, their peak in 1986 should have been roughly 2.8 MGD. This will become an issue beginning in 1990 with the projected completion of the Del Valle Water Treatment Plant expansion. Untreated water users will have to work with the Zone to develop new ways for them to irrigate in a manner consistent with an 11% peaking. Figure II.D.9 gives a tabulated picture of what might be expected as to available peak flowrates.

Because of revised (downward) scheduled delivery requests from the Zone's treated water customers, the average overall growth in water demand during the planning period is estimated to be on the order of 2% per year. The projected increase in water demand from 1985 to 1986 is estimated at 1.7%. This is less than what was estimated in the 1985 Planning Update. The large increases in demand during 1984 and 1985 apparently caused the Zone's retailers to submit very high delivery requests last year. This was reasonable but the 5% growth rate estimated for 1986 never materialized.

Production. The policy of the Zone is to have production capacity available to meet its customers peak daily demands. Peak hourly demands (including fire flows) are supplied by the retailers through their system storage. Actual and required production capacities are shown in Figure II.D.7 and graphically in Figure II.D.8. Notice it is projected that 1987-89 will be years in which production capacity and demand will be nearly equal. Based on this information, production requirements for the planning period will be satisfied by the construction of Hopyard Well No. 6 (3-MGD) in 1988, another 3-MGD well in 1989, an 18-MGD expansion of DVWTP in 1990, and additional 3-MGD wells in each of the years 2004, 2006, 2008 and 2010. The Zone will also be replacing the anthracite coal filter media at DVWTP in the spring of 1987. This will reduce the number of backwashes and increase the effective output.

B. Water Quality

Currently, except for trihalomethanes, the quality of treated imported and local surface waters is much better than that of local groundwaters pumped from the Zone's and its retailers' wells. Because of this there is a commitment to deliver as much treated surface water as possible to the residents of the Valley, using the groundwater basin as a backup supply. This has been the Zone's basic policy since the construction of DVWTP. The proposed 18-MGD expansion of the Del Valle Water Treatment Plant and the construction of another cross-valley pipeline are consistent with this policy.

Because of the ever-increasing summertime demands and maximum aqueduct capacity, it will be necessary to supplement treatment plant capacity with wellfield capacity. Therefore, two new wells are proposed to be constructed during the next three years (Hopyard Well No. 6 is already authorized and will soon be under construction). Since wells are to be used, a 1-MGD reverse-osmosis treatment plant is proposed at the Mocho (or possibly Hopyard) Wellfield in 1991 for the purpose of testing the cost-effectiveness of this method of water treatment. The reverse-osmosis (demineralization) process can reduce the mineral content of the Zone's well waters to approximately that of the treated surface waters. If determined to be cost effective, the employment of reverse-osmosis treatment at the Zone's wells can be expanded, allowing the Zone to deliver high quality water to its customers year-round. Improved groundwater quality may also be accomplished by recharging wells in the low demand periods with treatment plant water. More research is needed to provide the assurance that the well capacities will not be impaired.

Zone 7 currently monitors for total trihalomethanes (TTHMs) and pesticides and herbicides. Trihalomethanes (THMs)are classified as volatile synthetic organic compounds (VOCs) and pesticides and herbicides are classified as synthetic organic compounds (SOCs). There is all indication that the United States Environmental Protection Agency (EPA) will be regulating perhaps eight to ten new VOCs and/or SOCs each year for the foreseeable future.

Currently, the Zone 7 lab at DVWTP is equipped to handle only TTHMs and a few of the SOCs. To handle the anticipated new monitoring requirements would require additional analytical equipment and considerably more lab space. Even now, the major analytical work (inorganic, organic, bacteriological and TTHMs) are all performed in one open area. Such analytical work, by standard laboratory practice, should be performed in separately enclosed areas, each equipped with its own specific working conditions.

In view of the new anticipated monitoring work and the need to improve existing lab area working conditions, an expansion and/or upgrading of the lab facility is needed. Because of this projected increase in monitoring, it may be prudent to plan to handle the increased analytical requirements in-house. This will require the purchase of new equipment, the construction of new laboratory space, and the eventual hiring of additional personnel. Expanding the present lab into the old board meeting room has been an item of staff discussion, however just extending into the old board room space may not meet the Zone's long term needs. Accordingly, an expansion and upgrade has been included in this report. If constructed as currently planned, the Zone would have a responsive first-rate lab with high reliability and quality control, capable of meeting foreseeable future requirements.

A final note on water quality has to do with control of THMs. Recently, the Zone has used chlorine dioxide and is currently utilizing potassium permanganate for this purpose. The use of chlorine dioxide is currently limited by the State Department of Health Services. Potassium permanganate appears to be doing an adequate job since its first use in July 1986. The current maximum contaminant level (MCL) for TTHMs is 0.10 mg/l. With the use of potassium permanganate or chlorine dioxide, the Zone can remain under this limit; however, there are indications that EPA will lower it to between 0.025 to 0.050 mg/l, or possibly below that range. In that case the Zone may need a different TTHM control strategy. It appears at this time that the employment of ozone pretreatment would be the optimum method to lower TTHMs below these possible future limits and provide additional benefits such as improved coagulation, improved taste & odor control, and destruction of viruses. Recommendation on this matter from the Zone's engineering consultant, Kennedy/Jenks/Chilton, as part of its current preliminary studies of the expansion of DVWTP is forthcoming. However, it appears to be an almost foregone conclusion that treatment facilities with ozone pretreatment combined with a residual disinfectant will be necessary.

PARKS AND OPEN SPACE

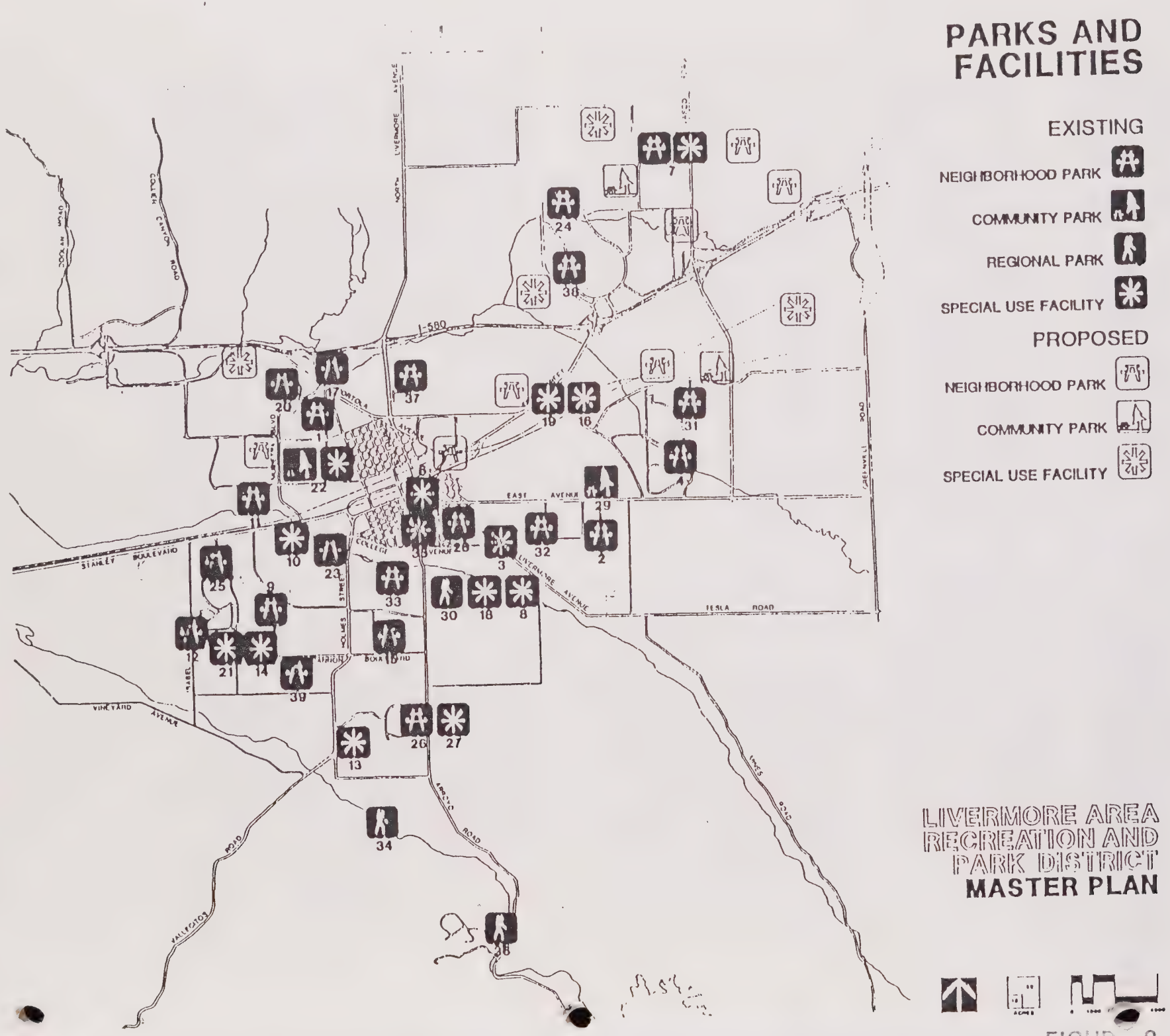

PARKS AND FACILITIES
EXISTING
NEIGHBORHOOD PARK
COMMUNITY PARK
REGIONAL PARK
SPECIAL USE FACILITY
PROPOSED
NEIGHBORHOOD PARK
COMMUNITY PARK
SPECIAL USE FACILITY
LIVERMORE AREA RECREATION AND PARK DISTRICT
MASTER PLAN
I-580
LIVERMORE AVENUE
EAST AVENUE
STANLEY BOULEVARD
VINEYARD AVENUE
TESLA ROAD
HOLMES STREET
ARROYO ROAD
VALLECITOS ROAD
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FIGURE 9

PARKS AND FACILITIES

	PARK NAME	LOCATION	TYPE	ACRES	Turfed & Landscaped	Tot Lot Equipment	Group Picnics	Barbecue Pits	Picnic Tables	Pre-School	Community Center	Soccer Field(s)	Basketball Courts	Ranger on Duty	Kitchen Facilities	Stream	Hiking Area	Bicycle Trails	Riding Trails	Volleyball court	Meeting Rooms	Restrooms	Horseshoes	Softball Area(s)	Baseball	Tennis
1	AL CAFFODIO	Shawnee Rd.	N	2	●	●		●	●																	
2	ALMOND	Almond Ave.	N	6	●	●		●	●									●								
3	BARN, The	3000 Pacific Ave.	S		●										●						●	●				
4	BIG TREES	Kathy Way	N	4.2	●	●		●	●																	
5	CAMP SHELLY	S. Lake Tahoe	S	9.41		●		●	●					●			●			●		●	●			
6	CARNEGIE	2155 Third St.	S	1	●				●						●						●	●				
7	CHRISTENSEN PK. & PRE SCHOOL	5611 Bridgeport Cr.	N/S	8.24	●	●		●	●	●		●														
8	COMM. HORSEMAN'S ARENA	3200 Stadium Ct.	S																			●				
9	EL PADRO	31 El Padro Dr.	N	5.54	●	●			●																	
10	GRANADA TENNIS COURTS	400 Wall St.	S																							●
11	HAGEMANN	Olivina Ave.	N	7.2	●	●		●	●			●														
12	HOLMWELL	Crystal/Peridot	N	6	●	●			●														●			
13	INDEPENDENCE	Holmes/Vallecitos	S	17	●			●	●			●										●				
14	JANE ADDAMS HOUSE	1310 Murdell Ln.	S		●	●				●																
15	KARL WENTE	Darwin/Kingsport	N	3.38	●																					
16	LARPD OFFICE	71 Trevarno Rd.	S	1.75	●				●																	
17	LIVERMORE DOWNS	Paseo Laguna Seco	N	6	●	●																				●
18	LIVERMORE VALLEY STADIUM	3200 Stadium Ct.	S	26	●							●										●				
19	LITTLE HOUSE	85 Trevarno Rd.	S		●	●				●																
20	MAITLAND R. HENRY	Alameda/Mendecino	N	5	●	●			●																	

Symbols: (U) Undeveloped (N) Neighborhood (C) Community (S) Special Use (R) Regional

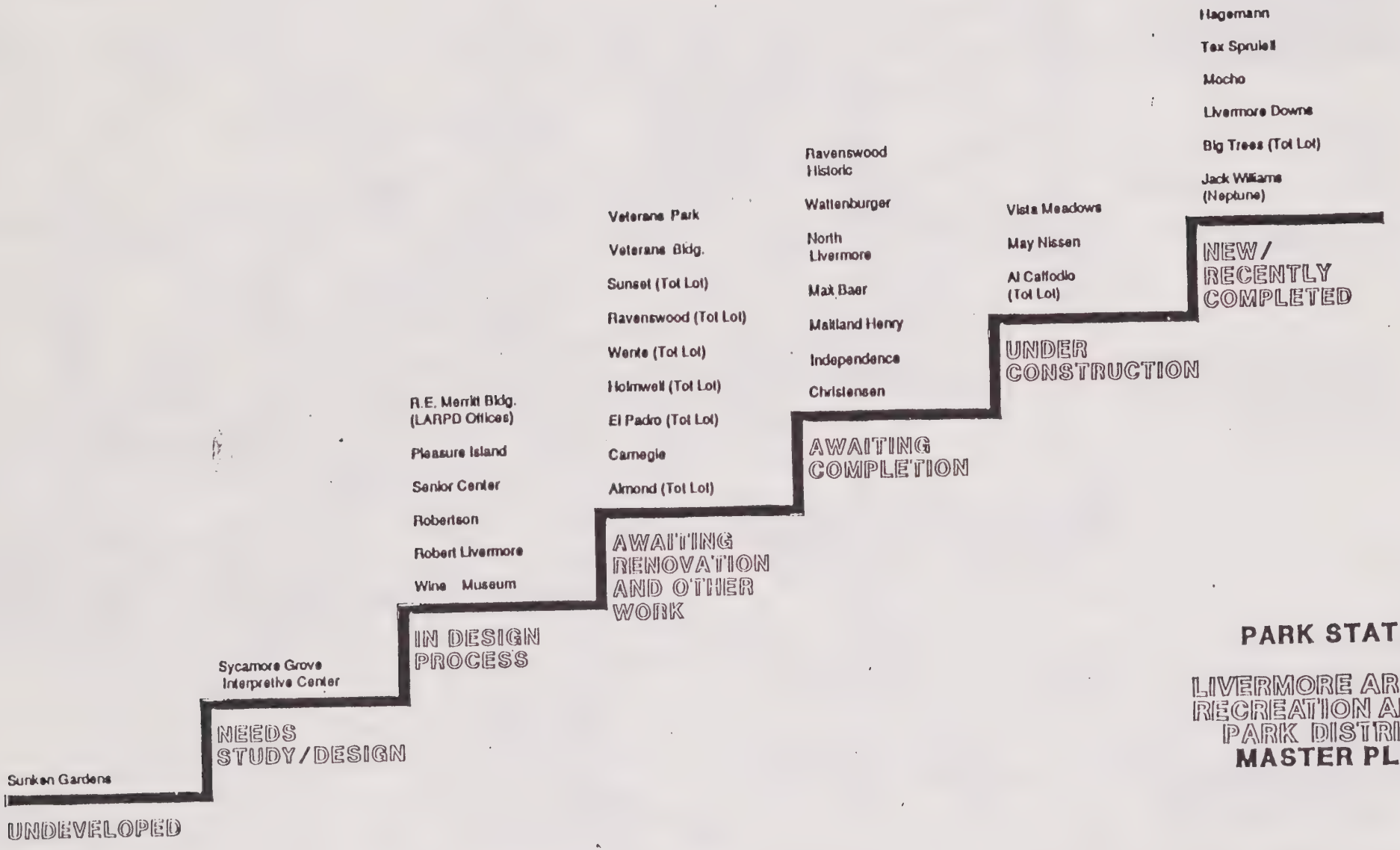
FIGURE 6

PARKS AND FACILITIES
continued

	PARK NAME	LOCATION	TYPE	ACRES	Turfed & Landscaped	Tot Lot Equipment	Group Picnics	Barbecue Pits	Picnic Tables	Pre-School	Community Center	Soccer Field(s)	Basketball Courts	Ranger on Duty	Kitchen Facilities	Stream	Hiking Area	Bicycle Trails	Riding Trails	Volleyball court	Meeting Rooms	Restrooms	Horseshoes	Softball Area(s)	Baseball	Tennis
21	MAX BAER	1310 Murdell Ln.	S	12	●																			●	●	
22	MAY NISSEN PK. & SWIM CNTR.	685 Rincon Ave.	C/S	12	●	●	●	●	●	●			●							●		●	●	●	●	●
23	MOCHO	Holmes/Mocho	N	3.3	●	●		●	●																	
24	NORTH LIVERMORE	Springtown/Galloway	N	12	●	●		●	●																	
25	PLEASURE ISLAND	Pearl/Flint	N	7.5	●	●		●	●																	
26	RAVENSWOOD PARK	Tahoe Dr.	N	3.3	●	●		●	●																	
27	RAVENSWOOD HISTORIC SITE	2647 Arroyo Rd.	S	24	●										●						●	●				
28	REC. CENTER	2466 Eighth St.	N	2.13	●	●				●	●				●						●	●				●
29	ROBERT LIVERMORE	East Avenue	C	29.86	●	●						●													●	
30	ROBERTSON	3200 Stadium Ct.	S/R	130					●							●	●	●	●			●	●	●		
31	M. W. "TEX" SPRUIELL	Geraldine/Felicia	N	9	●	●		●	●				●													
32	SUNKEN GARDENS	Pacific Ave.	N/U	8.5																						
33	SUNSET	Geneva St	N	6	●	●			●			●														
34	SYCAMORE GROVE	Wetmore Rd.	S/R	364					●					●		●	●	●	●			●				
35	VETERANS MEMORIAL BLDG.	522 S. "L" Street	S		●										●						●	●				
36	VETERANS PARK	5211 Arroyo Rd.	S/R	32			●	●	●					●		●	●	●				●				
37	VISTA MEADOWS	Westminster/Lambeth	N	5.7	●	●			●																	
38	RALPH T. WATTENBURGER	Honeysuckle/Poppy	N	4	●	●			●																	
39	JACK WILLIAMS	Neptune Rd.	N	4.52	●	●		●	●																	●

Symbols: (U) Undeveloped (N) Neighborhood (C) Community (S) Special Use (R) Regional

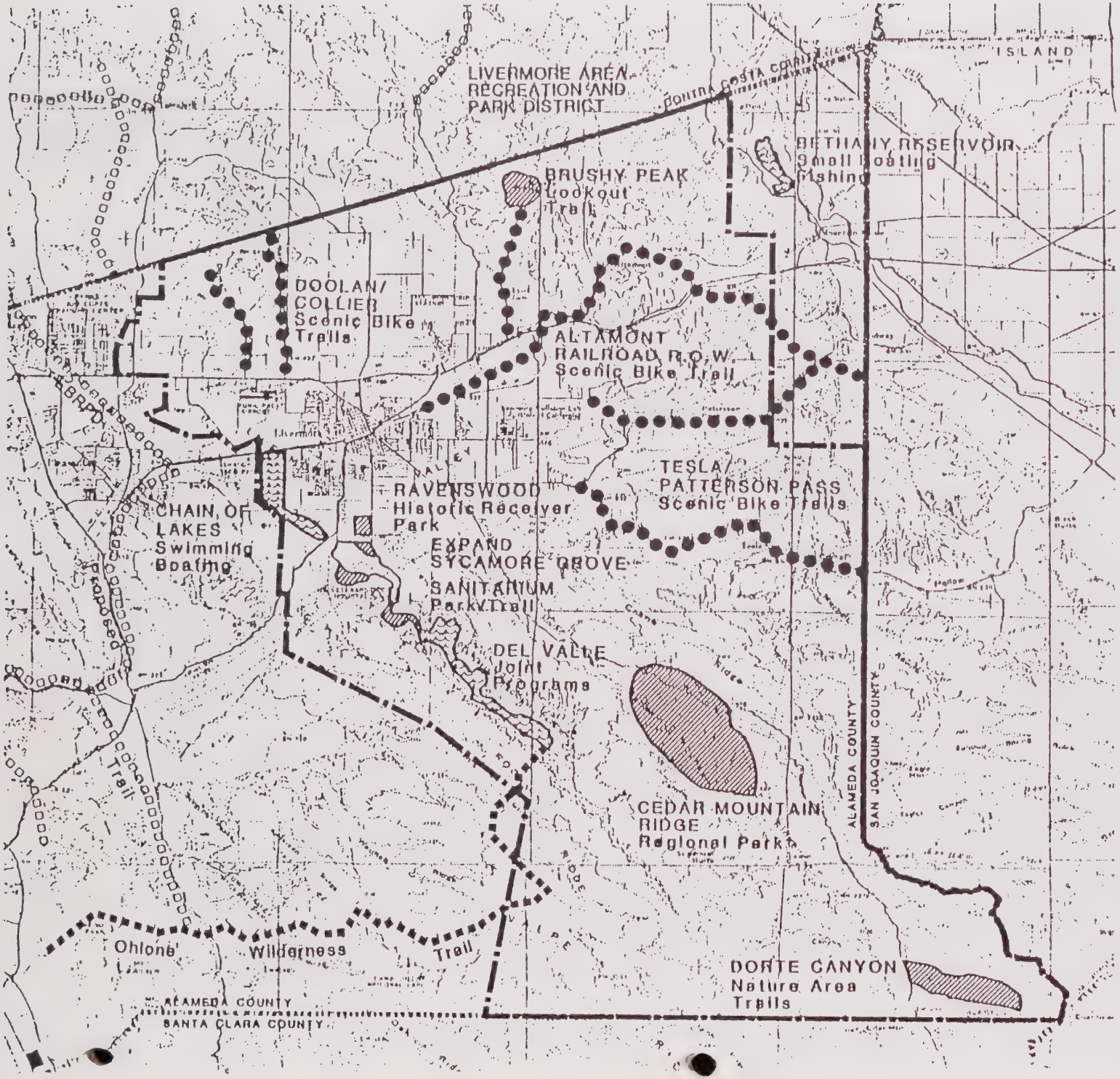
FIGURE 6 (...).



PARK STATUS

LIVERMORE AREA RECREATION AND PARK DISTRICT MASTER PLAN

FIGURE 7



REGIONAL OPPORTUNITIES

SCENIC BIKE ROUTE

PROPOSED CONNECTING TRAILS

EXISTING CONNECTING TRAIL

POSSIBLE REGIONAL PARK SITE

LIVERMORE AREA RECREATION AND PARK DISTRICT MASTER PLAN

FIGURE 10

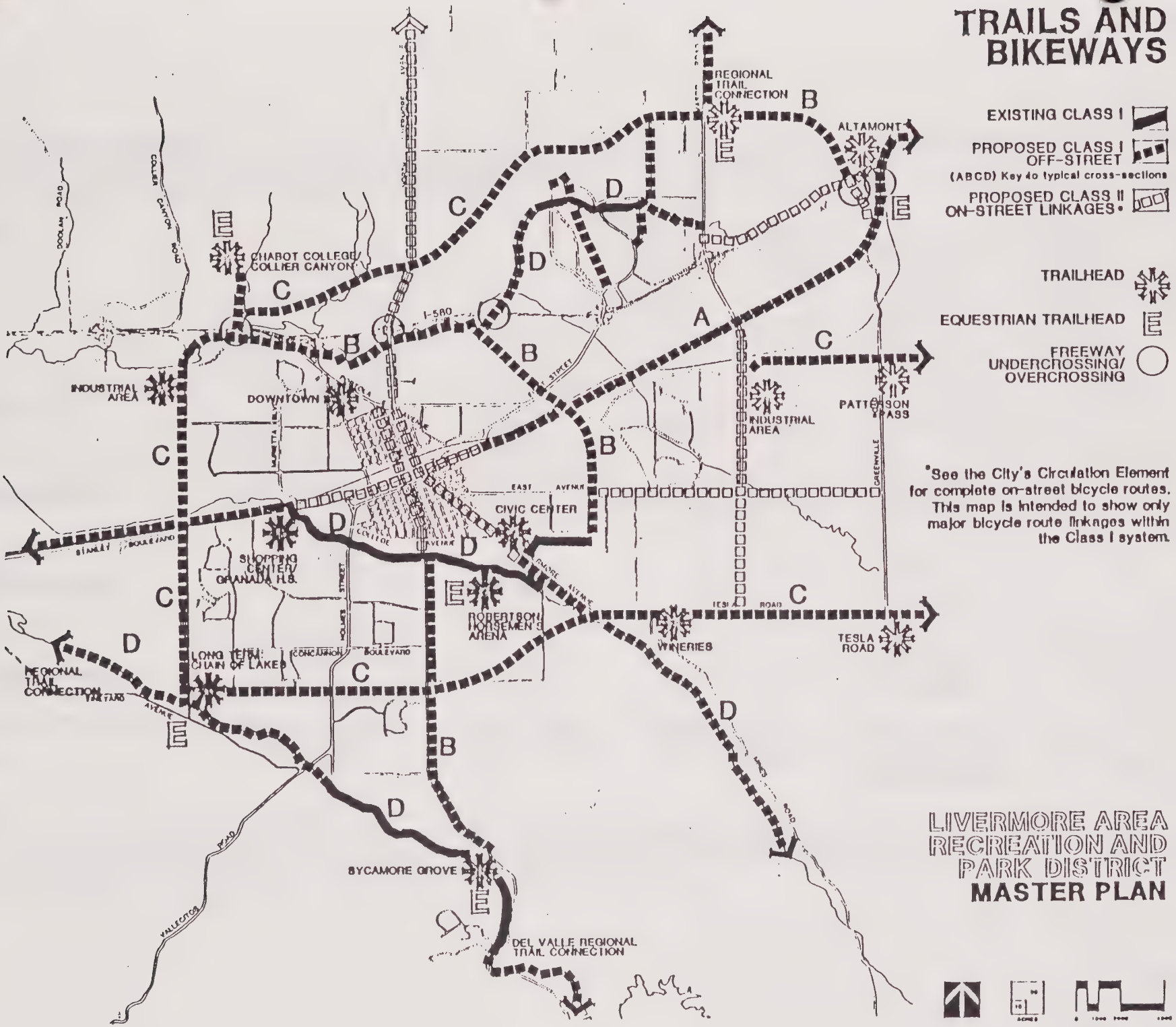

TRAILS AND BIKEWAYS
EXISTING CLASS I
PROPOSED CLASS I OFF-STREET
(ABCD) Key to typical cross-sections
PROPOSED CLASS II ON-STREET LINKAGES*
TRAILHEAD
EQUESTRIAN TRAILHEAD
FREEWAY UNDERCROSSING/ OVERCROSSING
*See the City's Circulation Element for complete on-street bicycle routes. This map is intended to show only major bicycle route linkages within the Class I system.
REGIONAL TRAIL CONNECTION
ALTAMONT
CHABOT COLLEGE/ COLLIER CANYON
I-580
INDUSTRIAL AREA
DOWNTOWN
PATTERSON PASS
CIVIC CENTER
SHOPPING CENTER/ GRANADA H.S.
ROBERTSON HORSEMEN'S ARENA
WINERIES
TESLA ROAD
LONG TERM CHAIN OF LAKES
SYCAMORE GROVE
DEL VALLE REGIONAL TRAIL CONNECTION
LIVERMORE AREA RECREATION AND PARK DISTRICT
MASTER PLAN

FIGURE 12

LARPD PARK AND FACILITIES NEEDS PROJECTION

Park or Facility Type	Established Standard 1988 [1]	Current Level of Service 1988 [2]	Needed to Meet Standard 1988 [1]	Additional Parks Needed to Meet Standard 2010 [2]
Neighborhood Parks	2 ac/1000[3] 6-10 acres per park	107.38 ac: 2 ac/1000	None	100 acres: 10-17 parks
Community Parks	2 ac/1000 30+ acres per park	42 ac: .75 ac/1000	67.45 acres: 2 parks	97.2 acres: 3 parks
Regional Parks	15 ac/1000 250+ acres per park	396 ac: 7.2 ac/1000	424.5 acres: 1 Park	729 acres: 2 parks
Special Use	3 ac/1000 park size varies	206 ac: 3.75 ac/1000	None	104 acres:

Notes:

(1) Standard as established in this Master Plan. See Figure 16.
(2) Based on 1988 and 2010 population estimates for the District Area.
(3) Acres per 1000 people.

FIGURE 8

NEEDS PROJECTION FOR SPORTS FACILITIES

	Established Standard [1] (Including Schools)	Existing Facilities & Level of Service in 1988 (Incl. Schools)	% Provided by LARPD as of 1988	Additional LARPD Facilities Needed to Meet Standard as of 1988[2]	Additional School Facilities Needed to Meet Standard as of 1988	Additional LARPD Facilities Needed to Meet Standard by 2010	Additional School Facilities Needed to Meet Standard by Year 2010 [2]
Ballfields	1:2,000 people	42 Fields 1:1,300	14% (6 fields)	None	None	2	11
Soccer Fields	1:2,000	26 Fields 1:2,000	46% (12 fields)	None	None	14	15
Tennis Courts	1:2,500	20 Courts 1:2,700	50% (10 Courts)	1	1	12	12
Swimming Pool [2]	1:35,000	1 Pool 1:55,000	100%	1	NA	1	NA
Gymnasium [2]	1:35,000	2 Gyms 1:27,000	0%	NA	0	NA	2

Notes:

(1) Standards are established in this Master Plan in the Park and Facility Standards chapter. These figures are based opn 1988 and 2010 population estimates for the District Area of 55,000 and 110,000 people, respectively. This assumes that LARPD and the schools will continue to meet the established standards and that they will continue to provide facilities in the same proportion as they do today.

(2) Pool and Gymnasium standards are given only for those facilities used for District programs.

FIGURE 11

'IVERMORE AREA RECREATION AND PARK DIST'

RECORD OF PARKS

PARK	DATE ACQUIRED	SIZE	DEVELOPED ACRES	UNDEVELOPED ACRES	PROJECTED COMPLETION DATE	OWNER
AL CAFFODIO	1968	2	2	0	1971	City
ALMOND	1965	4	4	0	1968	City
CARNEGIE	1966	1	1	0	1966	City
CHRISTENSEN	1975	6.72	6.72	0	1982	City
EL PADRO	1966	5	5	0	1982	City
HAGEMANN	1972	7.2	7.2	0	1983	City
HOLMWELL	1968	5	5	0	1974	City
INDEPENDENCE	1973	17	15.5	1.5	1990	City
KARL WENTE	1970	3.3	3.3	0	1979	City
LIVERMORE DOWNS	1986	5.5	5.5	0	1987	LARPD
MAITLAND HENRY	1970	4.2	3	1.2	1990	City
MAX BAER	1965	12	10	2	1991	LARPD
MAY NISSEN	1960	12	12	0	1964	City
MOCHO	1975	3.3	3.3	0	1986	City
NEPTUNE	1972	4.2	4.2	0	1986	City
N. LIVERMORE NEIGHBORHOOD	1976	8	5	3	1991	City
PLEASURE ISLAND	1972	6.5	3.2	3.3	1990	City
RAVENSWOOD NEIGHBORHOOD	1975	3	3	0	1977	City
RAVENSWOOD HISTORICAL SITE	1975	21	11	10	1995	City
ROBERT LIVERMORE	1969 1975	21.8 7.1	10	18	1995	City
ROBERTSON	1966 1974	69 37	20	86	1996	LARPD City
SUNKEN GARDENS	1958	8.5	0	8.5	1994	LARPD
SUNSET	1966	6.7	6.7	0	1970	City
SYCAMORE GROVE	1974	364	Open space natural pk trails only	364	1978	LARPD
VETERANS	1967	32	Open space natural pk	32	1969	LARPD
VISTA MEADOWS	1975	6	6	0	1978	City
RALPH WATTENBURGER	1980	5	5	0	1983	City

HOUSING

TABLE 5
EXISTING AND PROJECTED HOUSING NEEDS
ALAMEDA COUNTY AND CITIES

JURISDICTION	EXISTING NEED	1988-90 PROJECTED NEED	1990-95 PROJECTED NEED	ALTERNATIVE ZONING PROJECTED NEED	TOTAL PROJECTED NEED
ALAMEDA*	843	1,146	799	441	2,386
ALBANY	6	6	80		86
BERKELEY*	349	555	333	826	1,714
DUBLIN	0	1,479	1,912		3,391
EMERYVILLE	12	404	361		765
FREMONT	730	730	6,925	496	8,151
HAYWARD	89	1,435	7,299		8,734
LIVERMORE	291	291	1,666	582	2,539
NEWARK	25	275	562	608	1,445
OAKLAND	1,180	2,389	4,349	2,136	8,874
PIEDMONT	22	22	7		29
PLEASANTON	56	56	2,297	1,194	3,547
SAN LEANDRO	179	672	1,753		2,425
UNION CITY	308	1,066	890		1,956
Subtotal	4,090	10,837	29,390	6,283	46,042
Co. Remainder	1,122	1,618	1,272	0	2,890
COUNTY TOTAL	5,212	12,455	30,662	6,283	48,932

* Revisions approved; see Appendix F.

Source: ABAG Housing Needs Determinations, January, 1989

TABLE C-1
OVERPAYING - ALAMEDA COUNTY AND CITIES

CITY	# OF LOW INCOME HOUSEHOLDS OWNING	# OF LOW INCOME HOUSEHOLDS RENTING	# OF LOW INCOME HH OVERPAYING (OWNERS)	# OF LOW INCOME HH OVERPAYING (RENTERS)	PROPORTION OF LOW INC OWNERS OVERPAYING	PROPORTION OF LOW INC RENTERS OVERPAYING
ALAMEDA	3,163	8,741	973	5,890	0.31	0.67
ALBANY	1,380	2,164	372	1,345	0.27	0.62
BERKELEY	5,234	20,309	2,007	14,731	0.38	0.73
DUBLIN	420	361	266	266	0.63	0.74
EMERYVILLE	496	751	42	458	0.08	0.61
FREMONT	4,073	7,215	2,019	5,739	0.50	0.80
HAYWARD	4,734	8,460	1,734	6,232	0.37	0.74
LIVERMORE	1,849	2,291	1,042	1,693	0.56	0.74
NEWARK	1,069	920	572	720	0.54	0.78
OAKLAND	22,498	58,213	8,061	39,216	0.36	0.67
PIEDMONT	579	147	245	85	0.42	0.58
PLEASANTON	1,041	1,323	569	990	0.55	0.75
SAN LEANDRO	5,256	5,842	1,285	4,209	0.24	0.72
UNION CITY	1,341	1,701	582	1,176	0.43	0.69

TABLE C-2
OVERPAYING - CONTRA COSTA COUNTY AND CITIES

CITY	# OF LOW INCOME HOUSEHOLDS OWNING	# OF LOW INCOME HOUSEHOLDS RENTING	# OF LOW INCOME HH OVERPAYING (OWNERS)	# OF LOW INCOME HH OVERPAYING (RENTERS)	PROPORTION OF LOW INC OWNERS OVERPAYING	PROPORTION OF LOW INC RENTERS OVERPAYING
ANTIOCH	2,283	3,219	1,003	2,212	0.44	0.69
BRENTWOOD	366	460	113	269	0.31	0.58
CLAYTON	111	28	43	18	0.39	0.64
CONCORD	4,475	7,885	2,054	6,166	0.46	0.78
DANVILLE	590	342	328	295	0.56	0.86
EL CERRITO	1,793	1,758	589	1,258	0.33	0.72
HERCULES	113	36	65	32	0.58	0.89
LAFAYETTE	683	1,064	336	813	0.49	0.76
MARTINEZ	1,072	1,677	385	1,131	0.36	0.67
MORAGA	234	340	131	286	0.56	0.84
ORINDA	542	118	274	92	0.51	0.78
PINOLE	638	561	371	457	0.58	0.81
PITTSBURG	2,253	2,289	1,004	1,523	0.45	0.67
PLEASANT HILL	1,188	2,029	560	1,602	0.47	0.79
RICHMOND	6,299	8,489	2,588	5,332	0.41	0.63
SAN PABLO	1,631	3,054	501	2,119	0.31	0.69
SAN RAMON	491	294	266	229	0.54	0.78
WALNUT CREEK	2,020	3,924	712	3,268	0.35	0.83

Source: ABAG Housing Needs Determination, January, 1989

TABLE 13
EXISTING AND AVERAGED INCOME PERCENTAGES
ALAMEDA COUNTY AND CITIES

	VERY LOW		LOW		MODERATE		ABOVE MODERATE	
JURISDICTION	1980	AVG.	1980	AVG.	1980	AVG.	1980	AVG.
ALAMEDA*	25	25	20	18	21	21	34	36
ALBANY	30	27	20	18	23	21	27	34
BERKELEY	40	30	18	17	17	19	25	34
DUBLIN	9	20	11	14	26	23	54	43
EMERYVILLE	27	26	21	18	26	22	26	34
FREMONT	14	22	13	15	22	21	51	42
HAYWARD	22	24	17	17	25	22	36	37
LIVERMORE	15	22	12	15	23	21	50	42
NEWARK	11	20	10	14	23	22	56	44
OAKLAND	39	30	18	17	18	20	25	33
PIEDMONT	9	20	9	14	14	18	68	48
PLEASANTON	12	21	10	14	18	20	60	45
SAN LEANDRO	24	25	18	17	23	21	35	37
UNION CITY*	14	22	13	15	25	22	48	41
Unincorp.	21	24	16	16	23	21	40	39
COUNTYWIDE	28		17		20		35	

* Projected need by income category revised; see Appendix F and Table 21.

Source: ABAG Housing Needs Determination, January, 1989

TABLE 21
PROJECTED HOUSING NEED BY INCOME CATEGORY
ALAMEDA COUNTY AND CITIES

JURISDICTION	TOTAL PROJECTED NEED	VERY LOW	LOW	MODERATE	ABOVE MODERATE
ALAMEDA	2,386	548	382	477	979
ALBANY	86	23	15	18	30
BERKELEY	1,714	514	291	326	583
DUBLIN	3,391	678	475	780	1,458
EMERYVILLE	765	199	138	168	260
FREMONT	8,151	1,793	1,223	1,712	3,423
HAYWARD	8,734	2,096	1,485	1,921	3,232
LIVERMORE	2,539	559	381	533	1,066
NEWARK	1,445	289	202	318	636
OAKLAND	8,874	2,662	1,509	1,775	2,928
PIEDMONT	29	6	4	5	14
PLEASANTON	3,547	745	497	709	1,596
SAN LEANDRO	2,425	606	412	509	898
UNION CITY	1,956	372	293	450	841
Unincorp.	2,890	694	462	607	1,127
COUNTYWIDE	48,932	11,833	7,816	10,332	18,951

Source: ABAG Housing Needs Determinations, January, 1989

TABLE A

CITY OF LIVERMORE

FOR SALE HOUSING

Lower Income

Number of Bedrooms	Buyer's Income	Maximum House Sales Price** With 11% Mortgage
1 Bedroom	33,900	95,900
2 Bedrooms	$38,140	$100,050
3 Bedrooms	42,370	111,110
4 Bedrooms	46,610	120,000

Moderate Income

1 Bedroom	42,400	120,100
2 Bedrooms	$47,700	$122,220
3 Bedrooms	53,000	138,890
4 Bedrooms	58,300	150,000

* Based on median income of $42,400 for a family of four. Specified income may be exceeded by 20% in order to qualify for financing.

**Assume 10% down payment, thirty year mortgage.

Price does not include upgrades.

May 1989

CITY OF LIVERMORE

RENTAL HOUSING

Lower Income

Size of Apartment	Renter's Income	Maximum Monthly Rent**	HUD Section 8* Rents**
1 Bedroom	$27,100	$ 677	$ 654
2 Bedroom	33,900	847	772
3 Bedroom	38,150	953	965
4 Bedroom	42,400	1,060	1,080

Moderate Income

1 Bedroom	$36,000	$ 900	N/A
2 Bedroom	45,000	1,125	N/A
3 Bedroom	52,200	1,305	N/A
4 Bedroom	59,400	1,485	N/A

* Effective October 1, 1988
**Rents include utilities

May 1989

YEAR	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1978	K & B	3760	50	50	0		25.7	1.9	4515
	Jensen	3925	7	7	0		0.9	7.8	4515
	Anden	3940	53	53	0		17.7	3.0	4512
	Sunset	4005	21	21	0		6.3	3.3	4517
	Citation	4049	53	53	0		17.6	3.0	4512
	Spaeth	4099	12	12	0		3.7	3.2	4516
	K & B	4101	51	51	0		11.1	4.6	4512
	Citation	4108	23	23	0		5.9	3.9	4513
	Trotter	4178	9	9	0		1.0	9.0	4516
	Tinney	4230	50	50	0		8.3	6.0	4515
		TOTAL	329	329	0	0	98.2	3.4	

YEAR	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1979	Anden	3940	52	52	0		17.4	3.0	4512
	Citation	4108	44	44	0		13.4	3.3	4513
	Red Carpet	4138	16	16	0		5.4	3.0	4516
	Haley	4167	4	4	0		1.5	2.7	4512
	K & B	4182	67	67	0		21.5	3.1	4512
	Tinney	4230	14	14	0		1.2	11.7	4515
	Red Carpet	4477	58	58	0		8.0	7.3	4514
	Mason	4487	2	2	0		2.0	1.0	4511
	O'Callaghan	Junction	18	18	0		0.6	30.0	4514
	Stocking	N. 'L' St.	8	0	0	8			
	Watson	Old First	7	0	0	7			
	Misc		24	21	0	3			
		TOTAL	314	296	0	18	71.0	3.9	

YEAR	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1980	K & B	3760	34	34	0		10.5	3.2	4515
	Haley	4167	6	6	0		2.2	2.7	4512
	Citation	4174	35	35	0		12.4	2.8	4512
	Whitman	4192	8	0	8		3.4	2.4	4513
	Corbett	4470	9	8	1		11.3	0.8	4516
	Mason	4487	4	4	0		4.0	1.0	4511
	Riggle	4521	7	7	0		2.5	2.8	4512
	Anden	4675	75	75	0		21.1	3.6	4512
	O'Callaghan	Junction	25	25	0		0.9	27.8	4514
	Lexington	Murrieta	125	125	0		7.1	17.6	4513
	Misc		15	5	0	10			
		TOTAL	343	324	9	10	75.4	4.4	

YEAR	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1987	Home State	5365	15	15	0		7.4	2.0	4517
	Home State	5366	7	7	0		3.8	1.8	4517
	K & B	5462	8	5	3		4.1	2.0	4512
	Prado	5464	18	15	3		9.3	1.9	4516
	Anden	5469	15	14	1		3.3	4.5	4512
	Hivest	5472	75	75	0		9.4	8.0	4515
	Miklyn	5478	18	18	0		7.6	2.4	4512
	Anden	5568	17	17	0		5.6	3.0	4512
	Davidon	5627	60	60	0		2.7	21.9	4514
	K & B	5640	15	15	0		2.5	6.0	4515
	Miklyn	5643	18	18	0		3.8	4.7	4512
	Northwood	5645	60	46	14		15.7	3.8	4514
	TDN	5649	21	19	2		9.3	2.3	4517
	C & R	5655	16	16	0		8.7	1.8	4516
	Bottorff	5660	10	7	3		3.6	2.8	4515
	Trotter	5690	5	5	0		2.0	2.5	4516
	Bethel	PM5126	3	3	0		0.3	8.8	4514
	C & T	College	75	75	0		4.4	17.0	4516
	Misc		25	25	0				
		TOTAL	481	455	26	0	103.6	4.4	

YEAR	HIP #	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1988		Hofmann	5310	116	116	0		18.0	6.4	4512
		Hivest	5473	143	143	0		10.5	13.6	4515
	1985 RDP	K & B	5641	22	22	0		3.7	5.9	4515
	Exempt	SMD Realty	5851	10	10	0		2.2	4.5	4515
	Exempt	Mederos	5865	11	0	11		5.0	2.2	4516
	Exempt	Wirshing	5879	17	0	17		4.4	3.8	4516
		Davidon	5880	116	116	0		5.3	21.8	4514
	Exempt	A.P.I.	5906	15	0	15		7.6	2.0	4515
	Exempt	Mason/Smith	5911	21	0	21		12.3	1.7	4516
	Exempt	Lounsbury	5918	26	0	26		12.2	2.1	4515
	Exempt	Candon/Sue	5946	8	1	7		5.0	1.6	4516
	Exempt	Saratoga Service	5968	18	0	18		8.2	2.2	4511
	Exempt	Trotter	PM4681	5	3	2		0.6	7.7	4516
	Exempt	Cary	PM5375	3	3	0		0.4	7.0	4516
	Exempt	Coupe	PM5387	3	0	3		0.5	5.8	4516
	1987 RDP	C & T	College	1	1	0		0.1	10.0	4516
		Misc		3	3	0				
		TOTAL		538	418	120	0	96.2	5.6	

YEAR	HIP #	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1989	83-88	Driftwood	Las Flores	18	0	18		4.9	3.7	4512
	82-88	Fredericks	Portola	96	96	0		4.7	20.6	4514
	102-88	Livermore Park	Railroad	2	2	0		0.1	28.6	4516
	84-88	Mix/Manning	5646	44	0	44		10.0	4.4	4513
	79-88	Signature	5650	89	0	89		45.0	2.0	4513
	76-88	Claremont	5761	5	0	5		0.6	8.5	4514
	89-88	Standard Pacific	5866	91	0	91		30.4	3.0	4517
	77-88	Standard Pacific	5866	30	0	30		10.0	3.0	4517
	78-88	Hempy	5887	20	0	20		10.0	2.0	4516
	81-88	Signature	5903	119	5	114		44.0	2.7	4515
	Exempt	Herman	5951	16	0	16		1.4	11.2	4516
	70-88	McBail	5956	100	0	100		23.2	4.3	4515
	Exempt	Harwood	5966	10	7	3		4.1	2.5	4514
	Exempt	Laughlin	5967	20	0	20		9.7	2.1	4511
	72-88	Pulte Homes	5970	69	0	69		23.0	3.0	4514
	65-88	David Homes	5985	19	0	19		4.9	3.9	4512
	71-88	Braddock & Logan	5990	64	0	64		18.6	3.4	4515
	74-88	Davenport/Warren	5994	17	0	17		4.7	3.6	4512
	Exempt	College Estate	5995	26	0	26		4.3	6.0	4516
	Exempt	Maher	5997	10	0	10		5.0	2.0	4516
	Exempt	Rodeo	5999	11	0	11		8.5	1.3	4516
	Exempt	Robinson	6022	10	0	10		5.0	2.0	
	Exempt	Platt	6029	2	1	1		0.3	6.7	4516
	Exempt	Schwartz	6039	10	0	10		4.9	2.0	4511
	Exempt	Linn	6076	10	0	10		5.0	2.0	
	Exempt	McGrail	6088	10	0	10		5.0	2.0	
	Exempt	API	6093	16	0	16		8.0	2.0	4511
	Exempt	Staley	6094	6	0	6		3.7	1.6	
	Exempt	Klinke/Barr	6098	20	0	20		10.0	2.0	4511
	Exempt	Ferrari	6113	20	0	20		10.0	2.0	
		Misc				0			ERR	
			TOTAL	980	111	869	0	318.9	3.1	

YEAR	HIP #	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1990	81-88	Signature	5903	119	0	119		44.0	2.7	4515
	70-88	McBail	5956	100	0	100		23.2	4.3	4515
	72-88	Pulte Homes	5970	68	0	68		22.7	3.0	4514
	71-88	Braddock & Logan	5990	63	0	63		18.6	3.4	4515
	79-88	Signature	5650	89	0	89		45.0	2.0	4513
	35-89	Stocking		19	0	19		5.7	3.3	4513
	49-89	Pulte Homes		66	0	66		26.8	2.5	4514
	54-89	Ray Herman		86	0	86		29.7	2.9	4512
	34-89	Shea Homes		82	0	82		47.0	1.7	4516
	40-89	Warmington Homes		44	0	44		22.7	1.9	4514
	36-89	Miklyn Dev.		67	0	67		20.2	3.3	4512
	48-89	Parkside Assoc.		30	0	30		2.8	10.6	4515
	46-89	Standard Pacific		94	0	94		26.8	3.5	4513
		Misc				0		0.0	ERR	
			TOTAL	927	0	927	0	335.1	2.8	

YEAR	HIP #	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1991	81-88	Signature	5903	119	0	119		44.0	2.7	4515
	70-88	McBail	5956	86	0	86		19.9	4.3	4515
	49-89	Pulte Homes		66	0	66		26.8	2.5	4514
	34-89	Shea Homes		82	0	82		47.0	1.7	4516
	40-89	Warmington Homes		44	0	44		22.7	1.9	4514
	38-89	Alden Lane Assoc.		30	0	30		15	2.0	4517
		Misc				0				
			TOTAL	427	0	427	0	175.3	2.4	

YEAR	HIP #	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1992	81-88	Signature	5903	118	0	118		43.6	2.7	4515
	70-88	McBail	5956	86	0	86		19.9	4.3	4515
	49-89	Pulte Homes		66	0	66		26.8	2.5	4514
	40-89	Warmington Homes		44	0	44		22.7	1.9	4514
		Misc				0				
			TOTAL	314	0	314	0	112.9	2.8	

YEAR	HIP #	DEVELOPER	TRACT	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY	CENSUS TRACT
1993	70-88	McBail	5956	86	0	86		19.9	4.3	4515
	49-89	Pulte Homes		66	0	66		26.8	2.5	4514
		Misc				0				
			TOTAL	152	0	152	0	46.7	3.3	

SUMMARY YEAR	APPROVED	ISSUED	REMAINING	EXPIRED	AREA	DENSITY
1978	329	329	0	0	98.2	3.4
1979	314	296	0	18	71.0	3.9
1980	343	324	9	10	75.4	4.4
1981	444	374	1	69	80.7	4.6
1982	373	338	5	30	125.2	2.6
1983	515	409	4	102	138.1	2.9
1984	804	729	0	75	109.8	6.3
1985	571	571	0	0	87.3	6.2
1986	437	421	1	15	68.2	5.7
1987	481	455	26	0	103.6	4.4
1988	538	418	120	0	96.2	5.6
1989	980	111	869	0	318.9	3.1
1990	927	0	927	0	335	2.8
1991	427	0	427	0	175	2.4
1992	314	0	314	0	113	2.8
1993	152	0	152	0	47	3.3
TOTAL	7949	4775	2855	319	2042.4	3.6
PERCENTAGE	100%	60%	36%	4%		

EXEMPT PROJECTS APPROVED OR APPLIED FOR 1988-1989

TRACT	DEVELOPER	APPROVAL DATE	AREA	DENSITY	G.P.	LOTS	UNITS	UNDER-UTILIZE
5851	S.M.D. Realty	31488	2.23	4.48	8	10	10	yes
5865	Mederos	61388	5.00	2.20	4.5	11	11	yes
5879	Wirsching	61388	4.44	3.83	4.5	17	17	
5906	API	62788	7.64	1.96	2	15	15	
5911	Mason\Smith\Robe	92688	12.27	1.71	2	21	21	
5918	Loundsbury	112888	12.20	2.13	3	26	26	
5946	Candon/Sue	92688	5.00	1.60	2	8	8	
5951	Herman	12989	1.43	11.19	14	16	16	
5966	Harewood Assoc.	22789	4.07	2.46	3	10	10	
5967	Laughlin Partner	12389	9.70	2.06	3	20	20	
5968	Saratoga Service	121288	8.15	2.21	3	18	18	
5995	College Jt.Vent.	33189	6.00	4.33	14	26	26	yes
5997	Maher	20689	5.00	2.00	2	10	10	
5999	Rodeo Associates	32789	1.30	8.46	14	6	11	
6022	Robinson	31389	5.00	2.00	2	10	10	
6029	Platt	32789	0.30	6.70	6	2	2	
6039	Schwartz	41089	4.92	2.03	2	10	10	
6054	Alden Lane Assoc	89	20.00	2.00	2	40	40	
6058	Pegan	92589	3.30	3.03	3	10	10	
6073	TDN Enterprised	89	10.00	2.00	2	20	20	
6076	Linn	91189	5.00	2.00	2	10	10	
6088	McGrail	72489	5.00	2.00	2	10	10	
6093	API	8789	8.00	2.00	2	16	16	
6094	Staley	72489	3.70	1.62	2	6	6	
6098	Klinke/Barr	91189	10.00	2.00	2	20	20	
6113	Ferrari	91189	10.00	2.00	3	20	20	yes
6132	Gamblin/Mason	89	7.89	1.77	2	14	14	
6134	API/Olsen/Lanala	DENIED	7.35	2.72	5	20	20	yes
6143	API/Borges	DENIED	5.00	2.00	2	10	10	
6144	McGrail/McGrath	89	3.86	2.07	2	8	8	
6150	API/Perry	89	10.00	2.10	2	21	21	
6152	API/Diaz	89	4.75	3.79	5	18	18	
6154	Silver Oaks	92589	3.29	3.04	14	10	10	yes
6157	Pfisterer	89	2.50	2.00	2	5	5	
6172	Gerrard/Lambert	89	7.20	1.94	2	14	14	
6183	Trotter	89	1.16	7.76	8	9	9	
6193	Restech	89	3.90	2.56	14	10	10	yes
6201	Bramell	89	1.10	13.64	14	15	15	
6207	Tournament Dev.	89	2.10	3.81	6	8	8	yes
'PM4681	Trotter	7888	0.57	8.77	6	5	5	
'PM5375	Cary	61388	0.43	6.91	4.5	3	3	
'PM5380	Mercurio	5988	0.56	7.14	3	4	4	
'PM5387	Coupe	32388	0.52	5.81	6	3	3	
'PM5572	Pierce	89	0.38	5.26	4.5	2	2	

TOTAL	APPROVED UNITS	1988	141
TOTAL	APPROVED UNITS	1989	217
TOTAL	PENDING APPROVAL		144
TOTAL	DENIED		30
TOTAL	APPLICATIONS		532
TOTAL	APPROVALS		358

Approval date of "89" indicates projects that are pending approval.
October 24, 1989

NORTH LIVERMORE GENERAL PLAN AMENDMENT

CITY OF LIVERMORE

SEPTEMBER 1989

DRAFT

TABLE OF CONTENTS

I. INTRODUCTION

The purpose of the North Livermore General Plan Amendment is to establish a desired amount, mix and pattern of future land uses and major circulation systems for the area and identify policies and programs to achieve the community's objectives.

In July 1988, the Livermore City Council appointed a 12 person Citizen Advisory Committee to develop a proposal for a North Livermore General Plan Amendment. This Amendment, as envisioned by the City Council, expected future expansion of the City to be predominantly in a northerly direction. The majority of the 15,500 acres of the planning area are currently unincorporated and under the jurisdiction of Alameda County. In order for the City of Livermore to effectively "plan it's future," it must bring this area within it's Sphere of Influence. This requires that a complete planning and environmental study of the area be conducted. The results of these studies are formulated into this North Livermore General Plan Amendment.

A general plan contains a set of goals and policies which regulate urban development, resource management, and public safety. General plans also typically contain background information, and implementation programs which address physical, social and economic aspects of a community. A key component of a general plan is a land use and circulation map, which indicates the physical extent of land use designations and the major street system to serve the proposed land uses. The proposed Preferred Plan Map is schematic in nature, showing the general location of the circulation system and land use boundaries. Future studies (e.g. Specific Plans) will determine more precise locations for the roads and land use designations.

The proposed plan is an amendment to the existing Livermore Community General Plan. The goals and policies presented in this document are a selection of adopted goals and policies from the current General Plan which are applicable to the North Livermore Area. However, all the goals and policies of the current General Plan are applicable to development of the North Livermore Area unless modified or clarified by proposed goals and policies in this document which address specific conditions in the North Livermore Area. **Proposed goals and policies are shown in bold print.**

II. PLANNING AREA SETTING

A. Regional Location

As illustrated on Figure 1, the City of Livermore is located in eastern Alameda County along Interstate 580, about 40 miles east of San Francisco in the Livermore-Amador Valley. The nearest neighboring city is Pleasanton, approximately three miles to the southwest. The Alameda County cities of Dublin, Hayward and Castro Valley are due west on I-580. The Contra Costa County cities of San Ramon, Danville, Walnut Creek, Concord and Martinez are to the northwest on I-680. The San Joaquin County cities of Tracy and Stockton are east on I-580 and I-205.

Primary regional access to the planning area is provided by the I-580 interchanges with Fallon Road, Airway Boulevard (via North Canyons Parkway or Collier Canyon Road), North Livermore Avenue, and Vasco Road (through the Springtown area).

B. Local Setting

The 15,500 acre North Livermore planning area is comprised primarily of existing rangelands north of I-580, opposite the incorporated City of Livermore (Figure 2). The planning area is part of a nearly continuous expanse of open land north of I-580 in Alameda County stretching east from Tassajara Road near Dublin to the City of Tracy in San Joaquin County. Livermore's developing Springtown area is the only substantive existing urban expansion into this rural landscape north of the freeway.

Existing urban uses opposite the planning area on the south side of I-580 include the Las Positas Golf Course, the Livermore Municipal Airport, the Livermore sewage disposal plant, light industrial, a trailer park, service commercial, multi-family residential, commercial office space, scattered rural residential, and undeveloped flood plain and hill areas.

The planning area is bounded to the north by the Contra Costa County boundary and undeveloped grazing and agricultural lands. The west end of the area abuts undeveloped land near Fallon Road and overlaps the City of Dublin's designated planning area. The east end of the planning area is generally bounded by the Springtown area recently addressed in the Livermore Northside Area A General Plan Amendment, and by Vasco Road and the Altamont hills, in which the Alameda County landfill is located.

C. General Site Characteristics

The planning area topography includes a combination of rolling hills and flat grassland plain. The western half of the area has varied topography, with rolling grassland hills rising to as high as 700 feet above the valley floor, with slopes of up to 60 percent. Doolan and Collier Canyons run in a general

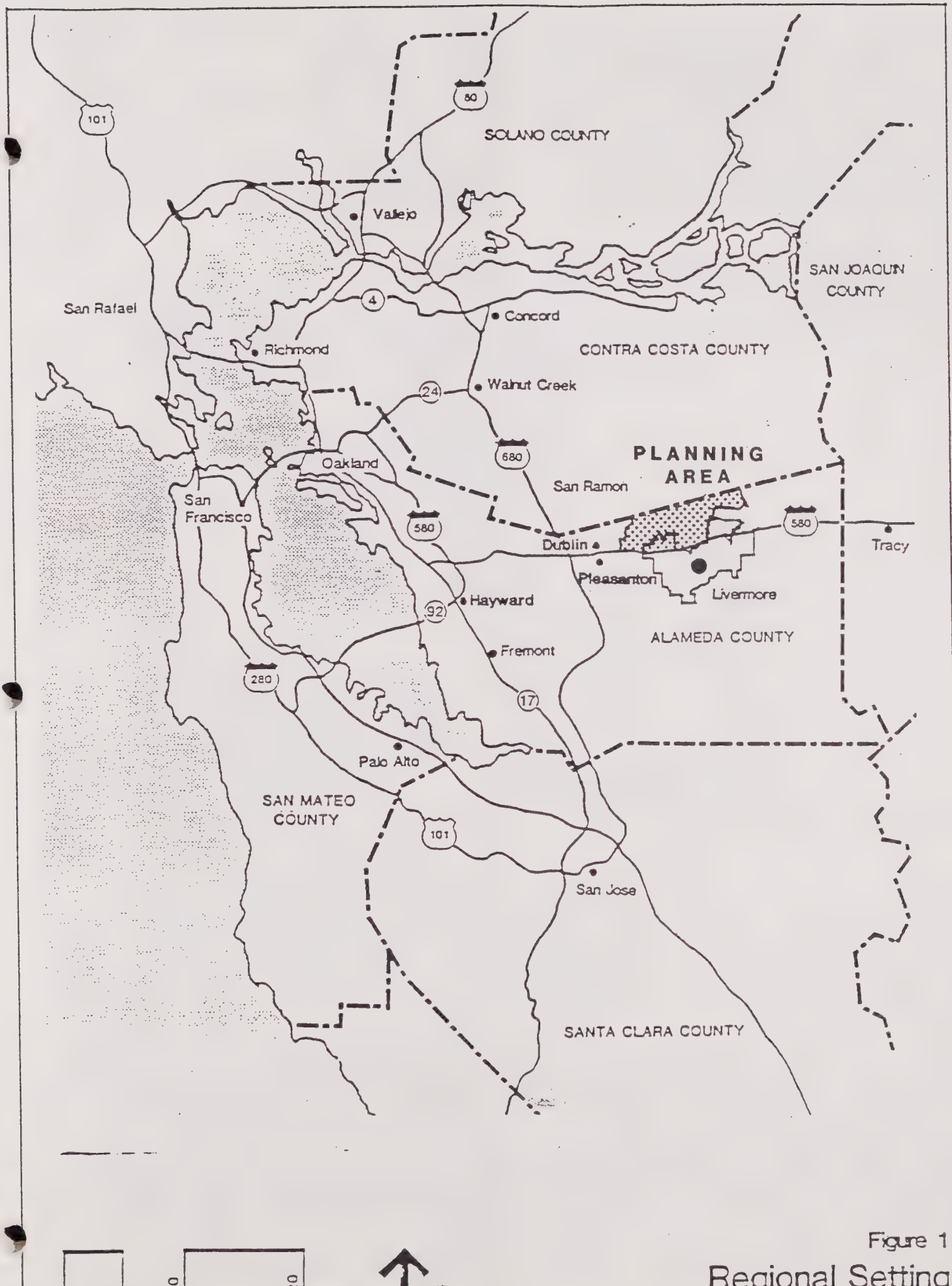


Figure 1

Regional Setting

(DRAFT)

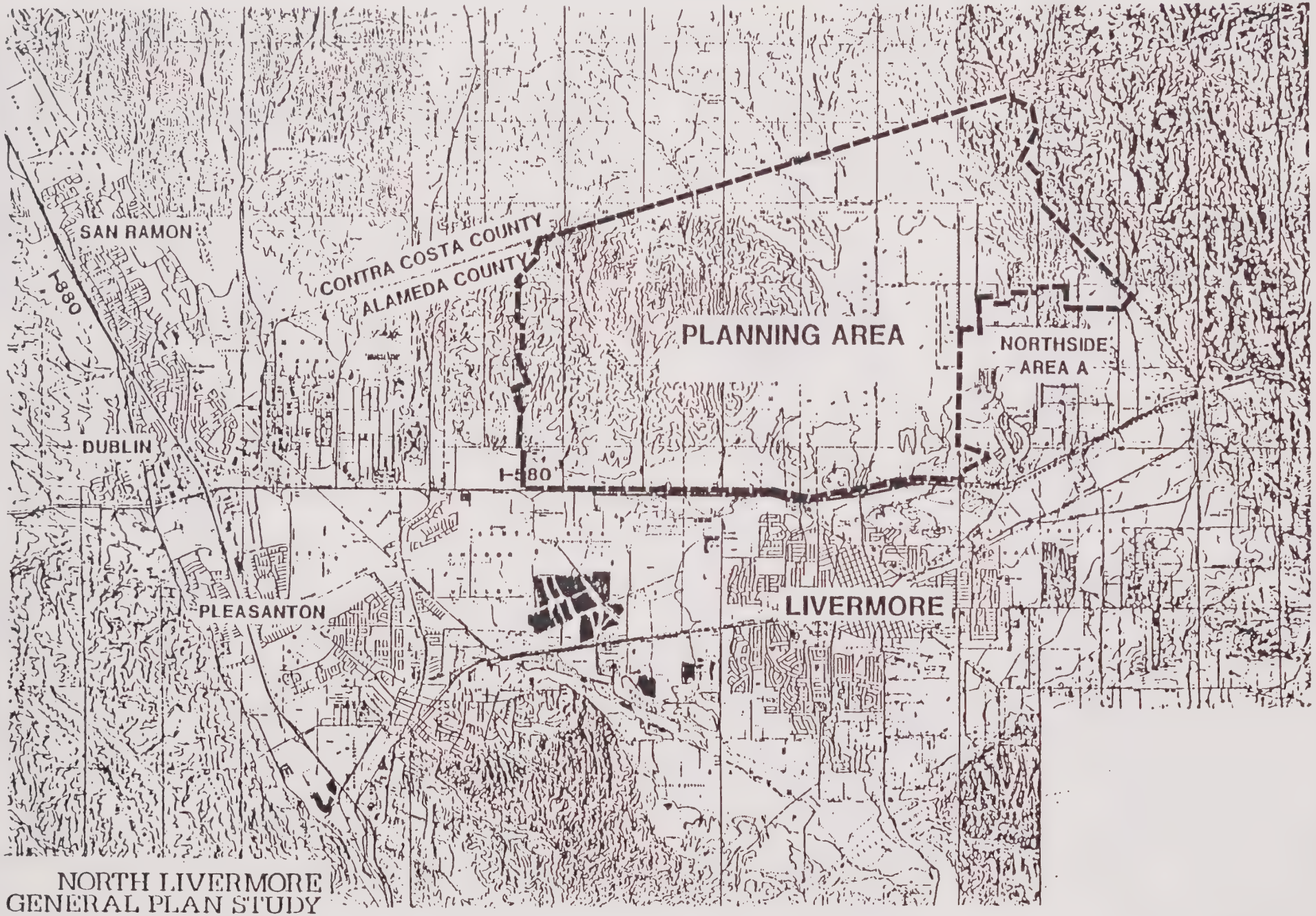


Figure 2
Local Setting

(DRAFT)

north- south orientation through this hilly area. Ranches and rural residences are located along these canyons.

A portion of the Altamont hills is included in the northeastern portion of the planning area near Vasco Road and the Contra Costa County line. Planning area elevations in this eastern hills area rise to above 1300 feet, with slopes up to 55 percent.

The Las Positas Valley occupies the central and southeastern portions of the planning area between the two areas of rolling hills. The valley is a flat plain, approximately 3 miles wide and occupying roughly one-third of the planning area. Land in the valley is used primarily for dry land farming, grazing land, and scattered rural residential development. The flat valley is visually separated from the I-580 corridor by a series of small hills with elevations of approximately 600 feet.

An additional, smaller flatland area is located in the southwestern corner of the planning area between the freeway and the hills. Triad Park and the Las Positas College campus are located in this area.

Several intermittent creeks run through the planning area, most in a north-south direction. Cottonwood Creek runs along Doolan Canyon, Collier Canyon Creek runs through Collier Canyon, Cayetano Creek runs through the Las Positas Valley, and Altamont Creek runs along Vasco Road at the far eastern boundary, through Springtown and then through the southeastern portion of the planning area. These four major creeks and other unnamed, smaller tributaries in the planning area drain into the Arroyo Las Positas, which runs roughly parallel to I-580 in an east-west orientation. This arroyo is the primary drainage course for the eastern end of the Livermore-Amador Valley.

Planning area vegetation consists primarily of annual grassland species and cultivated crops. Some native locust and oak trees are scattered throughout the planning area. In addition, a few cypress and eucalyptus wind-rows has also been introduced around ranches and homesites and along related roadways and property lines.

D. General Planning Area Land Use Pattern

The existing land use pattern within the planning area is illustrated on Figure 3. As previously mentioned, the area is dominated by agricultural and open space lands, with a developing concentration of commercial, industrial, public facility or institutional uses near the freeway, and scattered rural residential development on the inland areas.

Agricultural Uses. Agricultural uses in the area are divided between grazing range and dry land crop cultivation. Land in grazing are located in the western hilly area, in the Las Positas Valley, and in the Altamont hills. The primary crops grown in the area are barley and grain hay.

Approximately 8,600 acres within the planning area are currently under Williamson Act Contracts. Most of this agricultural preserve land is located in the western hill and in the northeastern Las Positas Valley. Approximately 2,600 acres of

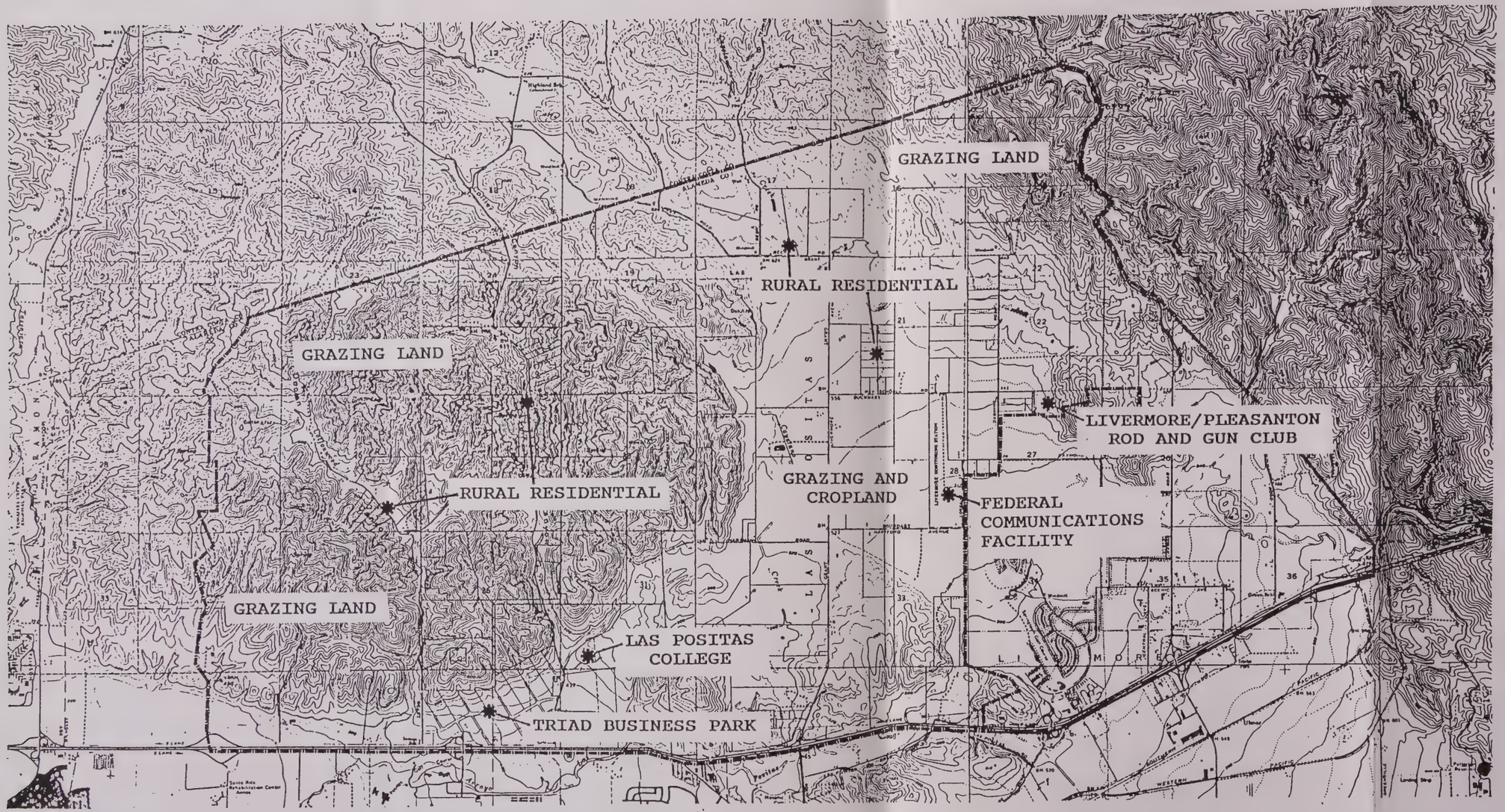


FIGURE 3

Existing Land Use

NORTH LIVERMORE
GENERAL PLAN STUDY
CITY OF LIVERMORE, CALIFORNIA

EDAW

these Williamson Act lands area currently in some stage of contract withdrawal; i.e., their owners have notified the county of their intent to withdraw from the existing contracts and, as a result, the ten-year-contract expiration process is underway. The properties with expiring contracts are located in two primary areas: in the Las Positas Valley and along the western border of the planning area.

Ranchettes. Rural Residential "ranchettes" (2 to 10 acres) are also a common land use in the area (approximately 60 parcels). These ranchettes typically contain a single-family home, some agricultural or recreational livestock and/or large garden or small crops with are grown for recreation, home consumption, or supplemental income. Ranchettes are located on Raymond Road, in Collier and Doolan Canyons, on Croak Road, off of May School Road, and on Dagnino Road.

Las Positas College Campus. Las Positas College owns 150 acres in the south portion of the planning area. Approximately 35 of the 150 acres are currently developed with college facilities, including an administration building, library, science, math and English buildings, a technical vocational center, parking and an activities field. Access to the campus is currently off Collier Canyon Road. Representatives from the college have indicated that they are currently undergoing a master planning effort for the property.

Business Park Development. Approximately 543 acres of land north of I-580 near the Las Positas College are currently designated for low intensity industrial use. The Triad Systems Corporation own 393 acres of this area, the Triad Business Park site, of which 150 acres have been subdivided into 22 lots. Triad has also constructed the first segment of North Canyons Parkway and set aside 133 acres of their more steeply sloped land as permanent open space.

The remaining 300 acres of industrially designated land are located immediately south of the college and are vacant.

FCC Monitoring Station. The Federal Communication Commission's (FCC) Livermore Monitoring Station, constructed in 1947, occupies a 117 acre site located between May School Road and Hartford Avenue, approximately .8 miles east of North Livermore Avenue. The station is responsible for enforcing FCC regulations and fulfilling treaty obligations relating to effective management of the radio spectrum. The Livermore Station is one of 13 FCC monitoring stations in the United States.

FCC requirements state that a monitoring station should be at least one mile from any existing or potential industrial, congested residential areas, or other uses creating electrical interference. Relocation of the Livermore station reportedly would be expensive, and, according to the FCC, an alternative site suitable for a monitoring station is virtually non-existent in the San Francisco Bay Area. Relocation to a more remotely located site would place the Bay Area outside of its coverage and thereby reduce the station's effectiveness. The FCC does not foresee moving the Livermore station in the future and would like to see strong city and county policies adopted to limit urbanization within the one-mile radius of the monitoring station. Relocation to a more remotely located site would place the Bay Area outside of its coverage and thereby reduce the station's effectiveness.

Other Land Uses. The Livermore-Pleasanton Rod and Gun Club owns and operates a shooting range on 48 acres off Dagnino Road.

E. Transportation

The North Livermore Planning Area is currently accessible from I-580 primarily via interchanges with Fallon Road, Airway Boulevard, North Livermore Avenue and Vasco Road. Existing north-south oriented roads in the area include Doolan Road, Collier Canyon Road (both accessible from the Airway Boulevard exit), North Livermore Avenue, Dagnino Road (accessible via the North Livermore and Vasco Road exits), and Vasco Road. Existing east-west access roads include: Manning Road, May School Road, Hartford Avenue, Hartman Road, a portion of Collier Canyon Road which acts as a frontage road to I-580, and the completed short portion of North Canyons Parkway.

The City's Circulation Element currently proposes three major new roads in the planning area: Isabel Expressway, an extension of State Route 84 north and east through the planning area; an extension of North Canyons Parkway from Dublin to the Greenville interchange, roughly parallel to I-580; and an extension of Springtown Boulevard north to the proposed North Canyons Parkway and Isabel Expressway extensions.

The Contra Costa Water District (CCWD) is proposing to construct a new reservoir, Los Vaqueros, north of the planning area in Contra Costa County. As part of this project, Vasco Road and several utility lines (gas, electricity) will need to be relocated. The CCWD is in the process of preparing the Vasco Road and Utility Relocation Environmental Impact Report which will examine in detail three alternatives for relocating Vasco Road.

The Bay Area Rapid Transit District (BART) plans to extend its services to Dublin by 1995 and to Livermore within the next 20 years. BART has purchased a site for a western Livermore Station southeast of the Airway Boulevard interchange and is in the process of selecting a site for an eastern station. Also, Alameda County is studying the possibility of future light rail transit service to the Livermore-Amador Valley via the existing Southern Pacific Transportation Company (SPTC) right-of-way. The Livermore Circulation Element recommends that one of these two regional transit possibilities be selected by the City for advocacy.

In addition to these local roadway and regional transit plans, the City's Circulation Element places strong emphasis on improved local provisions for alternative transportation modes, including bicycle and local transit use.

III. PLAN DESCRIPTION

The overall concept for the North Livermore Area is to create a community where residents can both live and work. It should be an extension of the existing City of Livermore, rather than a separate town, with extensive transportation links across I-580 and patterns of development similar to those of the older portions of Livermore. Neighborhoods should be designed to foster community activity. Schools and parks will be centrally located. Bicycle and pedestrian paths will connect neighborhoods, public facilities, shopping areas and employment centers in order to reduce the need for auto travel. Together, these uses, discussed in further detail in the Goals and Policies Section, will provide the basis of a dynamic extension of the City of Livermore which will evolve over the next 15 to 20 years.

Residential

The Preferred Plan designates approximately 12,000 acres for residential development resulting in about 17,400 to 24,500 dwelling units. The majority of the residential development will occur in the valley (15,500 to 22,500 units) with densities ranging from 0.2 units per acre to 15 units per acre in the Community Center. The average density in the valley is 3.6 units per acre.

Approximately 1,500 units are proposed for the hillside areas with densities ranging from 0.1 to 0.5 units per acre. The Plan encourages the transfer of density from the hills to receiver sites in the valley located around the Community Center.

Commercial

The Plan designates about 270 acres for commercial development ranging from neighborhood commercial to community and sub-regional shopping. Community Commercial (specialty retail) is proposed for the Community Center. A Sub-Regional Shopping Facility is proposed south of Las Positas College which may include department stores and automobile dealerships. Several locations for Neighborhood, Highway and Service Commercial uses are also indicated on the plan and additional locations may be identified in future Specific Plans.

Light Industrial/Business Park

Approximately 635 acres between Fallon Road and the proposed Isabel Expressway are designated for either Light Industrial or Business Park uses. Development of research and development (R&D), regional office and light industrial facilities are considered appropriate for this area.

Community Center

The Plan proposes a Community Center of about 180 acres to be located north of North Canyons Parkway and west of North Livermore Avenue. The Community Center will serve as the focal point for community activity and a primary shopping

district for residents in the area. Uses in the Community Center may include, but are not limited to, commercial retail and services, a high school, community park, performing arts facility, police and fire stations, medium and high density residential, hospital and/or medical offices.

Open Space/Parks/Recreation

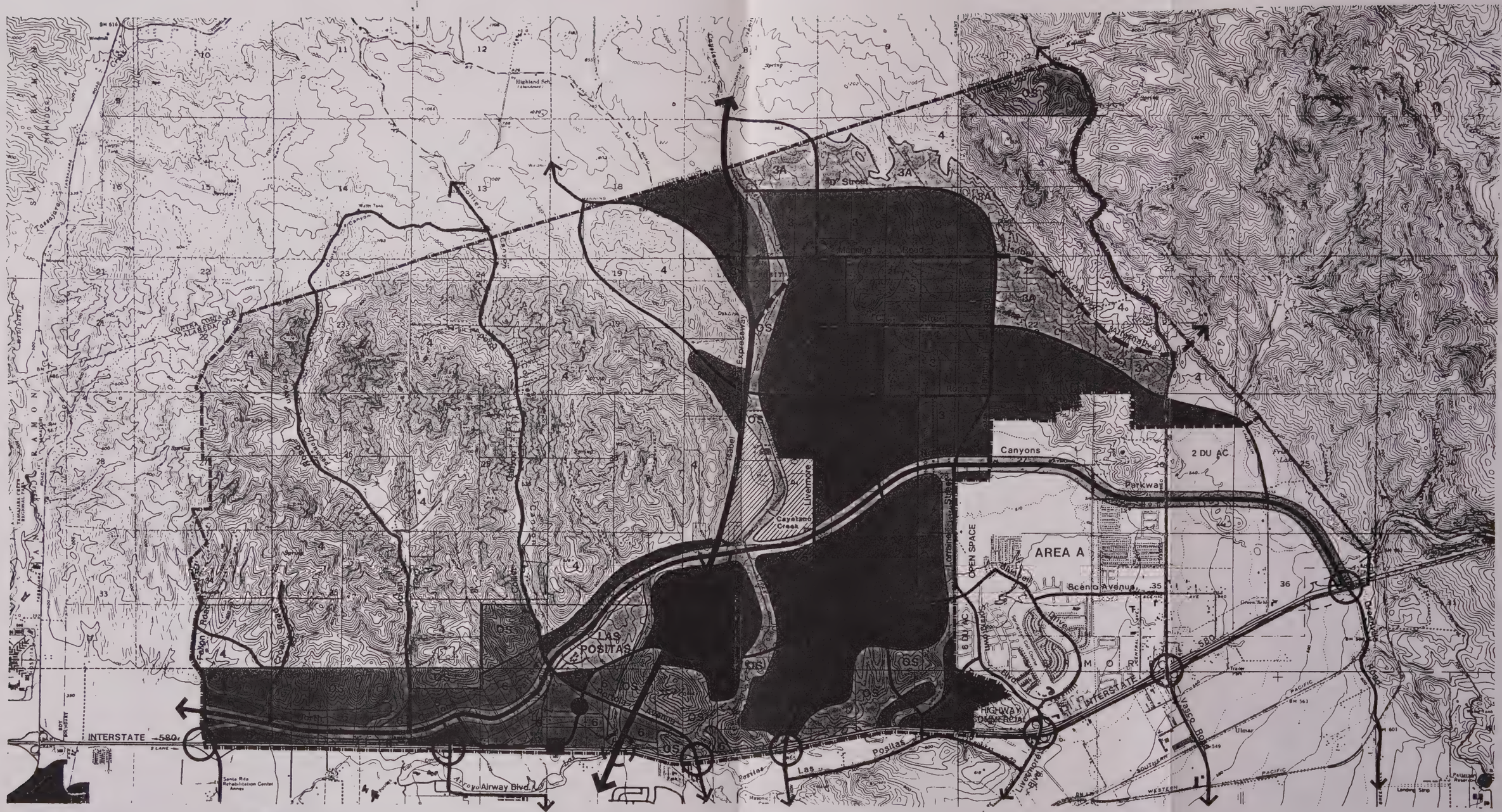
The Plan designates approximately 1,500 acres of open space including the Cayetano Creek Open Space Corridor. The Open Space currently designated on the Plan includes stream corridors and hillsides in the I-580 Scenic Corridor. Policies in the Plan also require the protection of ridgelines and other significant viewsheds.

Cayetano Creek will be developed as a major open space corridor which will utilize the 100-year flood plain to provide nature areas, community park facilities, trails and establish a strong commitment to outdoor recreation. An open space corridor will also be developed along North Canyons Parkway to provide access between the Springtown area and the Cayetano Creek corridor. Ridgelines and steep slopes in the two hill areas and along the I-580 frontage will be permanently protected and provide both visual and passive recreation amenities.

A Community Park is proposed to be located in the Community Center and a Sports Park may be located adjacent to Las Positas College and/or the Community Center. Although not designated on the Preferred Plan, development of the area will also include neighborhood parks.

Circulation

The Plan proposes an overall circulation system meeting both local and regional needs. Future key roadway alignments follow the existing established grid system where possible. The Plan designates the major components of the circulation system. The designation of collector and local streets, Scenic Routes, bicycle and equestrian routes will occur with future planning studies.



6-9 du/gross acre *

3-4.5 du/gross acre *

1.5-2.5 du/gross acre *

.2-.5 du/gross acre

4 .1-.5 du/gross acre

Commercial

Light Industrial/Business Park

OS Open Space

Community Center

Transfer of Development Rights Reciever Zone

Subregional Shopping Center

Proposed Bart Station

Existing Interchanges

Proposed Interchanges

Institutional

* Allowable density increases are available through contribution by the developer toward the development of public facilities of community benefit

Map areas and locations are for conceptual planning purposes only and should not be scaled for detailed planning or design.

EDAW

Preferred Alternative

NORTH LIVERMORE GENERAL PLAN STUDY

CITY OF LIVERMORE, CA

North Livermore General Plan Amendment
LAND USE FACTS SHEET

	ACREAGE		DWELLING UNITS	SQ.FT.
RESIDENTIAL				
Urban Medium High (Category #1) (6 to 9 DU/AC)	1,170		7,020 to 10,530	
plus contiguous open space lands @6 DU/AC		190	1,140	
Urban Medium and Urban Medium Low (Category #2) (3 to 4.5 DU/AC)	980		2,940 to 4,410	
plus contiguous open space lands @3 DU/AC		480	1,440	
Urban Low (Category #3) (1.5 to 2.5 DU/AC)	1,800		2,700 to 4,500	
plus contiguous open space lands @1.5 DU/AC		90	135	
Rural (Category #3A) (0.2 to 0.5 DU/AC)	625		125 to 313	
plus contiguous open space lands @0.2 DU/AC		12	2	
Community Center (10 to 15 DU/AC)	40		400 to 600	
Valley Subtotal	4,575	772	15,502 to 22,470	
Average Density in Valley	3.6 Units/Acre			
Hillside (Category #4)				
Slopes <15% @ 0.5 DU/AC	1,515		758	
Slopes 15% to 29% @ 0.2 DU/AC	1,515		303	
Slopes 30% or more @ 0.1 DU/AC	4,210		421	
Hillside Subtotal	7,240		1,482	
TOTAL UNITS			17,384 to 24,552	
POTENTIAL RESIDENTIAL POPULATION @ 2.5 PERSONS/HOUSEHOLD			43,460 to 61,380	
COMMERCIAL (Including Community Center. Assumes an average FAR of .2)	270			2,352,240
LIGHT INDUSTRIAL/BUSINESS PARK (Includes Sub-regional Shopping Center. Assumes .3 average FAR)	635			8,298,180
OPEN SPACE (Includes lands adjacent to Residential Designations)	1,490			
COMMUNITY CENTER (Includes residential, retail commercial, recreation facilities, public facilities, etc.)	180			
TRANSFER OF DEVELOPMENT RIGHTS RECEIVER ZONE	513			
LAS POSITAS COLLEGE	147			

A. LAND USE GOALS AND POLICIES

GOALS

1. It is a goal of the City that future land use patterns reflect the community's overriding concern for the protection and enhancement of the environmental setting and the protection of the health, safety and general welfare of present and future residents.

2. It is a goal of the City that new development be located so as to create a consolidated pattern of urbanization, particularly with respect to minimizing the cost of urban services and facilities.

3. It is a goal of the City that development within the Livermore Planning Area reflects the highest possible level of community design and image.

4. It is the goal of the City that future land development patterns create a unified community north and south of I-580 and that sufficient transportation linkages be provided between the two areas.

GENERAL POLICIES

1. The "Target Capacity" for the North Livermore Area shall be established at an average population of approximately 52,400. This shall be interpreted as an average of approximately 21,000 dwelling units (assuming an anticipated average of 2.5 persons per household). Approximately 90% of the households should be located in the valley portion of the area and 10% shall be either located in the hills or shall be used in a pool of development rights targeted for transfer to higher density developments in the valley.

2. Specific Plans shall be prepared for selected sub-areas within the North Livermore Area, prior to development approval. These sub-areas should include the Community Center, the areas adjacent to Cayetano Creek, and the residential areas on either side of North Livermore Avenue, commercial/industrial development south of Las Positas College and areas bounded by major streets where the development of circulation and public services must be coordinated among several separate properties.

3. Except where special conditions warrant, or as identified below, the City shall allow development only on those properties immediately adjacent to established urban areas.

   The City shall allow development to occur within the North Livermore Area provided the following conditions are met:

a. Development occurs under the jurisdiction of the City of Livermore.

b. Proposed land uses and site plans are consistent with the General Plan and any applicable Specific Plan.

c. All necessary public services (including sewer, water, police, fire, schools, and parks), can be provided to the City's standards at the time of development.

d. The rate of development is otherwise consistent with the City's residential growth management program.

4. Planned open space within and adjacent to the City shall be preserved to implement the trailways system, preserve scenic and historical resource, provide common areas within higher density developments, and promote the public health, safety and welfare. Among other techniques, density rights transfer shall be given high priority for study and implementation. The use of development rights transfer may enhance the ability of the City to preserve resource and minimize the inequitable effects of more traditional land use devices. Specific studies shall be undertaken looking toward the creation of a comprehensive and integrated system of development rights transfer.

5. The City shall consider, and if appropriate implement, a program for development rights transfers for the North Livermore Area. The purpose of the program would be to:

   a. Preserve, whenever possible, the open rural character of the hills;

   b. Promote higher density development in and adjacent to the Community Center, while maintaining the overall target capacity of the North Livermore Area.

6. Development applications for lands under Williamson Act contract will not be processed until one year prior to expiration. The City may consider cancellation of Williamson Act contracts if the required findings can be made for such cancellations.

B. RESIDENTIAL DEVELOPMENT

The North Livermore General Plan will accommodate approximately 21,000 dwelling units, with a potential population of about 52,400 persons (assuming an anticipated average of 2.5 persons/household). Most of the proposed residential development will be located in the Las Positas Valley where an estimated 15,500 to 22,400 units are planned. The remaining units are be allocated to the two hillside areas either to the west or northeast of the study area (see Figure 4). Approximately 1,500 units are planned for the hills with an average gross density of .2 units per acre. The average density within the valley area is 3.6

units/acre, which is slightly lower than the 3.8 units/acre within the adjacent Area A to the east. At buildout, the General Plan Amendment proposes a population approximately equal to that of the existing (1989) City of Livermore population (55,000). Assuming a projected growth rate of 3.0% per year, the City will obtain a population of 110,000 around the year 2010.

Significant physical, visual, access and infrastructure constraints to development in the hillsides have guided the plan to focus the primary residential development in the Las Positas Valley, leaving a more rural residential character and density of development in the hillsides. Residential development would occur northeast of the proposed commercial corridor associated with I-580 and in those areas sheltered from the freeway by the small hills located at North Livermore Avenue. Residential densities are proposed to be most concentrated near the intersection of North Livermore Avenue and North Canyons Parkway, adjacent to the Community Center and the Cayetano Creek Open Space Corridor. Residential densities will gradually decrease from 6 units per gross acre to 0.2 units per gross acre with distance from this location. Lower densities in the valley are suggested to the north and east of the town center. Particularly, densities are low (0.2-3 dwelling units/gross acre) within the watershed that drains into the Bird's Beak habitat area. Creative solutions to directing storm run-off from development within the watershed are encouraged. Residential densities surrounding the Bird's Beak area and adjacent to the remainder of Area A are compatible with existing City of Livermore zoning.

The plan suggests that North Livermore Avenue be the main gateway to the North Livermore Area from the southern portions of Livermore. North Livermore Avenue, North Canyons Parkway, and Isabel Parkway will be the primary major arterials to serve the residential community.

The Preferred Plan proposes five density categories for future residential development.

Residential Category #1: Density - 6 units per gross acre. This designation is located around the Community Center to take advantage of the facilities within the Community Center and the major streets in the planning area. Higher densities will allow the inclusion of housing types such as garden apartment and townhouses. While the plan indicates a base zoning of 6 dwelling units/gross acre, developers will be allowed to increase their densities up to 20 units per gross acre through a transfer of development rights program that is managed and facilitated by the City of Livermore. Essentially, this mechanism will permit landowners in the hillsides to sell their development rights to another party with the stipulation that their land remain as open space or agricultural uses, while the buyer is granted the right to increase their base density in a designated area surrounding the Community Center. This idea is to maximize development in and adjacent to the Community Center while protecting open space in the hillsides. A receiver zone for the transfer of development rights is indicated on the Preferred Plan. Development rights may only be transferred from the hill areas to the designated receiver zone in the valley.

Another mechanism to increase density within this residential category is the density increase program. Contributions toward facilities of public benefit will allow an increase of density up to a maximum of 9 units per acre.

Housing types within the 6 dwelling units/gross acre zone should include a variety of densities such as duplex, zero lot line, and lot variations of the typical single family detached unit.

Residential Category #2: Density - 3 dwelling units per gross acre. The intent of this designation is to provide low density residential development. Development within this category will generally be the more traditional detached single-family home. The density increase program will allow densities up to a maximum of 4.5 units per acre.

Residential Category #3: Density - 1.5 dwelling units per gross acre. This residential designation is located in the north and east portions of the plan to provide a transition between the low density single-family residential and rural residential area. A buffer will also be provided between the Bird's Beak habitat area in Springtown and future urban development to the west. The density increase program will allow densities up to a maximum of 2.5 units per acre.

Residential Category #3A: Density - 0.2 to 0.5 dwelling units per gross acre. The intent of this designation is to provide very low densities near the County boundary, north and east of Manning Road. The development of large lots is encouraged to provide agricultural/rural residential uses in the area. This land use pattern may be viable where infrastructure costs can be lowered by permitting individual septic fields in combination with municipally supplied water. Lot sizes will be based on areas required for drain fields.

Residential Category #4: Density - 0.1 to 0.5 dwelling units per gross acre. In the hillside areas, residential densities are indicated at gross density, however, on individual parcels the allowable density will be determined by the slopes on the site as follows:

Slopes	Units Per Gross Acre
<15%	.5
15% to 29%	.2
30%+	.1

The ridgelines, slopes over 30% grade, and areas with irreparable landslides or other geologic/soil hazards will be eliminated from the developable area of the parcel. Residential units will then be clustered on the remaining land. Parameters for determining the hillside/valley line include slope grades above 15%, and elevations beginning at approximately 600 feet in the western hillsides and 700 feet in the eastern hillsides.

An integral part of the development goals for this area is to preserve the open space and agricultural values of the hills. As such, landowners within this residential category are encouraged to participate in the transfer of development rights program between the hillsides and the valley floor. (Refer to Residential Category #1.)

Density Increases

In Residential Categories #1, #2 and #3, an increase in the allowable density is available through contribution by the developer toward the development of public facilities of community benefit. Contributions may include land, facilities or funds. Dedications and/or fees normally required by the development process are not included in this program.

Allowable increases in density are as follows:

Category #1 (6 du/ac)	Up to 3 additional units per gross acre
Category #2 (3 du/ac)	Up to 1.5 additional units per gross acre
Category #3 (1.5 du/ac)	Up to 1 additional unit per acre

A program will need to be developed which identifies facilities of community benefit and the amount of density increase given for contribution toward those facilities.

Residential Phasing

The single most important factor to the location of residential development is proximity to City infrastructure services. Currently, only the Triad/Las Positas College area to the west and the Springtown Development to the east have utility/roadway improvements. Logically, development will proceed in the southern portion of the site progressing toward North Livermore Avenue. However, if feasible, development in the north and northeast portions of the planning area (Residential Categories #3 and #3A) is encouraged to proceed in earlier phases to establish and preserve areas for rural residential development. Developers may proceed with development in other locations, however, the financial burden of providing for infrastructure improvements may prove to be economically prohibitive. The plan advocates a south to north pattern of development.

RESIDENTIAL DEVELOPMENT POLICIES

1. Residential expansion shall be limited to those areas identified as being highly suitable according to the criteria and policies of the Environmental Resources Management Element of the Livermore Community General Plan.

2. The City shall encourage the use of the Planned Unit Development concept where possible to decrease construction costs, provide open space, increase the variety of housing types and provide integrated low and moderate income housing.

3. In the North Livermore Area Valley, (defined as all contiguous land below elevation 600 feet), the overall average residential density shall be 3.6 units per gross acre (an average of 9 persons per acre). The highest density residential development shall be located in and adjacent to the Community Center, on either side of Cayetano Creek, and in the vicinity of Las Positas College. Densities shall decrease with

distance from these features and in conjunction with the Bird's Beak watershed(s).

4. In the North Livermore Area Hills, (defined as all contiguous land above elevation 600 feet for the western hills and above 700 feet in the eastern hills), the overall average residential density shall be 0.2 units per gross acre (an average 0.5 persons per acre). Within this guideline, the highest densities shall be located in areas closest to the Valley and densities shall gradually decrease approaching the Planning Area boundary. At the lower densities, parcels should be of a size suitable to allow agriculture and grazing uses.

5. All residential development in the North Livermore Area shall be subject to the Environmental Resources Management Goals and Policies.

6. The City shall develop a Transfer of Development Rights program to facilitate the transfer of development from the hillside areas (Residential Category #4) to the Receiver Zone in the valley identified on the Preferred Plan.

7. The City shall develop a Density Increase Program to allow increases in density within Residential Categories #1, #2 and #3 based upon contributions toward facilities of public benefit. The program shall identify facilities of public benefit, contribution methods (facilities, land, funds, etc.) and the amount of density increase given for the contributions within the allowable maximum.

8. Residential development shall be consistent with the Livermore Urban Design Implementation Program.

C. COMMERCIAL AND LIGHT INDUSTRIAL/BUSINESS PARK DEVELOPMENT

The Preferred Plan proposes commercial and industrial/business park development at specific locations in the planning area. The majority of the light industrial/business park uses are proposed just north of I-580 to the east and west of the existing Triad development site. Neighborhood, Community, Highway and Service Commercial uses would be located at major intersections within the planning areas.

Light Industrial/Business Park

Approximately 635 acres of land between Fallon Road and the Isabel Expressway are designated for either Light Industrial or Business Park use. Developments of an office park nature similar to the Triad complex are deemed more appropriate than large nondescript warehouse structures. To give flexibility to the land adjacent to the hills, phasing of light industrial sites is encouraged south of North Canyons Parkway. Design guidelines to protect views and "silhouette" of the hills will be required for future development of the area.

Sub-Regional Shopping Facility

The plan proposes a sub-regional shopping facility as a long-term possibility when there is a sufficient market from which to draw. The area most strategically located for this use is close to I-580, the community center, the future BART station and the Isabel Expressway alignment. A Uses within the sub-regional shopping facility may include destination oriented prime retail tenants (including auto sales) and accessory retail uses, business and commercial services, and professional and administrative offices. Specific Plan should be prepared for this area to coordination development of the sub-regional shopping facility with the BART station, Isabel Expressway, and Las Positas College.

Community Commercial

Within the Community Center, proposed commercial uses would contain some specialty retail which will help draw people to the center, but should not compete with existing downtown Livermore retail establishments. Types of uses would include neighborhood convenience commercial for the resident population such as a small grocery, drug store, dry cleaners, and specialty retail commercial such as gourmet foods, clothing boutiques, flowers, beauty salons, ice cream, gifts, cards, books, antiques, cafes and restaurants. The amount of commercial space within the Community Center should be determined by a Specific Plan.

Neighborhood Commercial

To supplement the commercial uses within the Community Center, convenience commercial uses will be located along North Livermore Avenue at the intersection with North Canyons Parkway and at the intersection of Dagnino Road and "C" Street. Other neighborhood centers may be located at the intersection of major streets. These neighborhood commercial nodes would include supermarkets, gas stations, dry cleaners and other uses that should be closer to the residential population. Approximately 4-6 neighborhood commercial centers would be needed within the plan area and each would encompass from two to eight acres.

Highway Commercial

Highway Commercial uses will be located at the I-580 interchanges at Fallon Road and Airway Boulevard and along Isabel Expressway at Manning Road. Highway Commercial uses may be possible at the North Livermore interchange depending upon future planning studies. Commercial uses in these areas are intended to serve the travelling public and include service stations, restaurants, hotels and motels.

Service Commercial

Service Commercial uses are proposed at Las Colinas Road north of I-580 and along Isabel Expressway at North Canyons Parkway and Manning Road. Service Commercial uses support other retail commercial and include auto service, nurseries, home maintenance centers and wholesale establishments.

COMMERCIAL AND LIGHT INDUSTRIAL/BUSINESS PARK DEVELOPMENT POLICIES

1. The downtown shall serve as the dominant commercial area and as the major retail shopping area within the period of the Livermore Community General Plan.

2. Downtown shopping shall be supplemented by neighborhood shopping centers, consisting of retail convenience and personal service uses. These centers shall be located as small clusters of establishments typically on a 3 - 12 acre site serving a neighborhood trade area of 5,000 to 10,000 persons. Centers should be located on one corner of an intersection and located so that the trade area residents are within relatively easy walking distance. Neighborhood centers should be more than one mile apart so as not to overlap with adjacent trade areas. In the North Livermore Area these neighborhood shopping centers shall be located at major intersections. Specific Plans for the area should address the location, size and number of these small commercial centers.

3. Within the Community Center, community-serving commercial retail and services shall be developed. It shall serve as the focal point for community activity and primary shopping district for residents of the North Livermore Area. The Community Center shall be highly oriented to pedestrians, and should include amenities such as arcades, benches, plazas and rear-building parking. Pedestrian and bike paths should provide linkages with Cayetano Creek and the rest of the Planning Area. A Specific Plan should be prepared for this area.

4. Highway commercial development adjacent to Interstate 580 shall be limited. Within the North Livermore Area new highway commercial development shall be limited to sites adjacent to the First Street, Vasco Road, Greenville Road, Airway Boulevard and Fallon Road interchanges and along Isabel Expressway at North Canyons Parkway and Manning Road. Highway commercial uses may be developed at the North Livermore interchange depending upon future planning studies.

5. A site for a sub-regional shopping facility shall be provided in the North Livermore Area, in the vicinity of an intersection on the Isabel Expressway, Las Positas College and other business park uses. It should be accessible, yet buffered, from residential development. A coordinated Specific Plan should be prepared for the entire 300+/- acre site. The Specific Plan shall consider coordination with the surrounding light industrial/business park area, Las Positas College and parking facilities for the proposed BART station.

6. The City shall prohibit strip commercial development whether retail, office, or service commercial, to avoid the following problems:

   a. traffic congestion resulting from inadequately controlled access;

b. high public costs of widening and improving major streets in order to accommodate traffic movement;

c. difficulty in containment of such areas;

d. poor aesthetic character where site planning, architectural style, landscaping and signing are inadequate;

e. the spread of blight into adjacent neighborhoods.

7. Commercial and light industrial/business park development shall be compatible with the design character of surrounding development in accordance with the Livermore Urban Design Implementation Program.

8. Provide for the development of research and development (R&D), regional office and light industrial facilities in the appropriate, designated areas.

9. Development of commercial and light industrial/business park facilities shall be compatible with the environmental constraints of the area.

D. COMMUNITY CENTER

The plan proposes one Community Center to be located north of the North Canyons Parkway alignment, west of North Livermore Avenue and the existing Hartford Road. The size of the Center is approximately 180 acres and will be integrated with the Cayetano Creek Open Space Corridor. Proposed uses include a community park, high school, commercial specialty retail, high density housing, and include a number of public cultural facilities such as a library, firehouse, post office, police, and public meeting spaces. A primary emphasis of the development should be pedestrian-oriented circulation with connections to a regional system and existing City of Livermore routes. Residential and retail uses will encourage 24 hours of activity, with the residential component providing the necessary surveillance and reducing the prospect of crime. Architectural character, land use adjacencies, circulation, and open space will be addressed by a Specific Plan.

COMMUNITY CENTER POLICY

A Community Center shall be developed within the North Livermore Area, in the vicinity of the intersection of the Isabel Parkway and North Canyons Parkway and on either side of the Cayetano Creek Linear Park. It shall serve as the focal point for community activity and primary shopping district for residents of the North Livermore Area. The Community Center shall be developed with a coordinated western/rural architectural theme. Uses encouraged in this Community Center include, but are not limited to:

- Local-serving commercial retail and services
- High school
- Community Park and/or Sports Park

- Community Recreation Center, Performing Arts Facility, and/or Meeting Hall
- Police, Fire, Library and City Government substations/annexes
- Post Office
- Medium and high density residential uses
- Hospital and/or medical offices

The North Livermore Area Community Center shall be highly oriented to pedestrians, and should include amenities such as arcades, benches, plazas, rear-building parking and/or multi-level parking structures. Pedestrian and bike paths should provide linkages with Cayetano Creek and the rest of the Planning Area. A Specific Plan should be prepared for this area.

E. CIRCULATION

The plan proposes an overall circulation system meeting both local and regional needs. Utilizing the existing historical grid system of roadway alignment within the valley area has been a basis for planning and limiting potential traffic congestion in North Livermore. Future key roadway alignments shall follow the existing established foundation where possible. The Plan designates the major components of the circulation system. The designation of collector and local streets, Scenic Routes and bicycle, pedestrian and equestrian routes/paths will occur with future planning studies. The following discussion highlights the Circulation System:

Isabel Expressway - Proposed as a major north/south route between the Livermore Valley and delta lands to the north, the plan indicates two alternatives for the expressway through the plan area. The preferred alternative is an alignment that crosses I-580 west of the Portola Avenue interchange, is directed north through a saddle in the hills southeast of Las Positas College, parallels the line of the hills, and continues north. The second alternative is similar to the first alignment in the southern portion of the study area except that it would turn east and align with or run north of the current Manning Road right-of-way. This alignment may be necessary should the preferred alternative prove environmentally hazardous and economically infeasible. The alignments of the two alternatives are placed to minimize the travel time through the valley and to lessen the impacts to development in the area.

Design of the roadway should consider short- and long-term proposals. Initially, Isabel Expressway will most likely be constructed at grade with limited intersections and stop lights. The long-term need might be a grade separated freeway. Proposed interchanges or major intersections within the plan area include I-580, North Canyons Parkway, Manning Road, and Vasco Road if the eastern alignment is chosen. Design and construction of the roadway shall include noise reduction measures such as berming or depressing the road bed.

North Canyons Parkway - In order to lessen short local trip generation on I- 580, North Canyons Parkway is conceived as a major parallel arterial connecting Greenville Road and the Springtown development to existing and proposed development occurring in the City of Dublin. The alignment is subject to several constraints including existing development patterns in Springtown and the protection

of the Bird's Beak environment, south of Raymond Road in Area A. The proposed route would begin at the Greenville Road interchange, traverse northwest to Raymond Road, move through the existing FCC site before heading southwest toward Las Positas College and finally connecting with the existing portion of North Canyons Parkway in the Triad development. The route will require measures to mitigate potential impacts to the Bird's Beak habitat area. Cooperation with FCC officials is also necessary for the viability of the proposed route and reconfiguration of their facility may be necessary.

North/South Linkages to Existing City of Livermore

There are eight different connections either proposed or existing to link North Livermore to the existing City. Traversing east to west, they are as follows:

1) Vasco Road - The current alignment was considered for the planning study and improvements are proposed according to the Circulation Element and the Area A Plan. The Contra Costa Water District (CCWD) is proposing to relocate Vasco Road and several major utility facilities located in the Kellogg Creek watershed in eastern Contra Costa County. These relocations will be required because the CCWD plans to construct a reservoir or combination of reservoirs, known as the Los Vaqueros Project, on Kellogg Creek in southeastern Contra Costa County.

2) Springtown Boulevard - This road currently ends at Galloway Street south of the identified Bird's Beak habitat area. The plan proposes an alignment that turns west to avoid the Bird's Beak and then heads north connecting with the existing Lorraine Street right-of-way and ultimately with Dagnino Road.

3) Las Colinas Road - Currently a two-lane overpass connecting North Livermore Avenue south of I-580 to a residential property north of I-580 near the Arroyo Las Positas. The plan proposes connecting Las Colinas Road to the north with North Canyons Parkway and May School Road. This connection will allow some development to occur on lands west of the Arroyo.

4) North Livermore Avenue - There are no changes anticipated to the alignment of North Livermore Avenue except an extension of approximately 2,500 feet north of Manning Road. Widening the road from 2 to 6 lanes may occur between I-580 and the Community Center location due to the fact that it will remain the most direct link to the existing City of Livermore.

5) Portola Avenue/Collier Canyon Road - The Portola Avenue interchange on I-580 is currently of limited access with only westbound on-ramp and eastbound off-ramp movements. The plan suggests a two-way extension of Portola Avenue to continue through to the west to connect with a realignment of Collier Canyon Road. The existing on- and off-ramps will be maintained.

6) Isabel Expressway - An interchange is proposed with I-580 between Portola Avenue and Airway Boulevard. This alignment was discussed earlier.

7) Airway Boulevard - No changes are proposed to this interchange with I-580. Development in the Doolan Canyon area would utilize this overpass to access downtown Livermore.

8) Fallon Road - Little development is expected to occur north of North Canyons Parkway, however, this interchange will be used primarily by commercial uses planned to the east and west.

Other Significant East/West Plan Area Roads

In addition to North Canyons Parkway, other major streets are proposed to serve the increased residential development. Significant among these are Manning Road, May School Road and proposed A, B, C and D Streets that connect Springtown Boulevard/Dagnino Road to North Livermore Avenue and the western hillside canyons beyond. Existing road pavements will have to be upgraded and potential right-of-way acquisition for shoulder improvements and utility easements.

Canyon Roads

Three significant canyons within the western hillsides remain areas for potential access to development and open space uses. Doolan Canyon currently terminates south of the County border. The plan proposes linking Doolan Canyon to Collier Canyon Road about 1/2 mile into Contra Costa County. The rural character of Doolan Canyon will remain, serving only local traffic.

Collier Canyon Road currently ties into Contra Costa County roads and will connect with North Canyons Parkway at Las Positas College in a new intersection and then extend to the southeast to connect with Portola Avenue. Another canyon road is proposed just north of the Community Center. Due to steep terrain, Croak Road and Fallon Road will not be extended north, however, a parallel connection road north of North Canyons Parkway is suggested to permit access to flatter terrain.

Bicycle, Pedestrian and Equestrian Path System

Similar to the road network, the bicycle, pedestrian and equestrian path system will link North Livermore to the rest of the city and the surrounding region. In addition to these regional connections, and extensive bicycle, pedestrian and equestrian path system should be developed within the area to allow adults and children to travel throughout the area for shopping, recreation and social trips.

The plan proposes adding bicycle and pedestrian paths to the Cayetano Creek Corridor and the North Canyons Parkway Open Space Corridor. All major east-west arterials and major collectors should contain bicycle lanes. Scenic bike routes should be developed along Collier Canyon and Doolan Roads. The Las Colinas Road overpass and the Portola Avenue flyover should be designed to add bicycle/pedestrian access. This is particularly important for the Portola Avenue area since it connects with Cayetano Creek and Las Positas College. Direct and

easy access to the Bird's Beak for bicyclists and pedestrians is encouraged. Similar consideration should be given to valley roads connecting with canyon roads.

Noise Mitigation

An area of concern to both hillside and valley housing is the level of noise generated from major arterials such as North Canyons Parkway and Livermore Avenue, and the proposed Isabel Expressway. California law requires noise study reports for any project fronting major roadways. Measures to reduce noise impacts include setbacks, sound walls, buffers, and depressing the road bed depending upon the anticipated noise level and the mitigation required to lower those levels to normal amounts. Where possible, the plan advocates the use of setbacks in combination with berms and vegetation over the use of soundwalls. Another possible solution to lessen noise impacts is locating sport fields between roads and residential or commercial uses. An opportunity to do this exists within the Community Center between Cayetano Creek and Isabel Expressway.

Livermore Airport

The Livermore Airport is the only municipal airport in the Livermore-Amador Valley. Airport improvements are undertaken in accordance with the City's Airport Master Plan. This plan indicates a 1,250 foot westward extension of the runway which would necessitate the relocation of six fairways at the adjacent Las Positas Golf Course. In addition, the City's General Plan reserves acreage for an airport runway approach clear zone.

Local Transit

Current transit service in the City is being provided by the Livermore-Amador Valley Transit Authority (LAVTA) through their "Wheels" bus lines. Service to areas north of I-580 include Las Positas College and the Springtown area.

The Bay Area Rapid Transit District (BART) has completed the initial planning studies for a Livermore extension. The proposed rail extension is split into two phases. Phase I would extend BART to Dublin. It is anticipated that this extension could be open as early as 1995. A subsequent phase, Phase II, would extend BART along I-580 to Pleasanton and Livermore. BART has purchased property south of I-580 and east of the Airway Boulevard interchange for a western Livermore station. Site selection for an eastern Livermore station is currently underway.

Alameda County is in the process of preparing a countywide transportation plan which will consider the development of a light rail transit (LRT) system within the Tri-Valley area. Non-Livermore portions of the unused SPTC corridor have been acquired by the County for this purpose and acquisition of other portions is being negotiated. No precise alignment for the LRT route through Livermore has been specified at this time.

CIRCULATION POLICIES

Development in the Planning Area is subject to the goals and policies of the existing Circulation Element except as modified below.

1. The Preferred Alignment for the Isabel Expressway would cross I-580 west of the Portola Avenue interchange, flow north through the saddle in the hills southeast of Las Positas College, parallel the base of the western hills and continue north. A second alternative would veer to the east above or along Beck Road. The second alternative should be placed as far north as possible to reduce its impact on the proposed valley residential neighborhoods.

2. Design and siting of the Isabel Expressway shall consider both long- and short-term use of the roadway. Future plans should address the initial at-grade alignment and the possible future need for improvement to a grade separated freeway, appropriate intersection locations and design of buffers to adjacent residential development.

3. North Canyons Parkway shall be developed as a parallel arterial to I-580 which provides a through connection from Greenville Road, through the study area, to connect with the City of Dublin alignment to the west. The proposed route would begin at the Greenville Road interchange, traverse northwest to Raymond Road, move through the FCC property before turning southwest toward Las Positas College and finally connecting with the existing portion of North Canyons Parkway in the Triad Development. A Specific Plan shall be prepared to determine appropriate mitigation measures for the Bird's Beak area and the FCC facility and to identify the ultimate roadway alignment.

4. The following interchange and roadway improvements shall be implemented to facilitate north/south transportation linkages to the existing City of Livermore:

    a. Vasco Road - Expand the right-of-way north of Scenic Road to include landscaped noise buffers.

    b. Springtown Boulevard - Extend to connect with Lorraine Street and Dagnino Road. Siting should avoid impacts to the Bird's Beak area.

    c. Las Colinas Road - Connect north to North Canyons Parkway and May School Road.

    d. North Livermore Avenue - widen the roadway to 6 lanes between I-580 and the Community Center and extend the roadway north of Manning Road.

    e. Portola Avenue/Collier Canyon Road - Extend the on-ramp flyover to continue through to the northwest to connect with Collier Canyon Road.

f. Isabel Expressway - Consistent with policies (a) and (b) above, construct a new interchange between Portola Avenue and Airway Boulevard.

g. Airway Boulevard - Maintain existing alignment.

h. Fallon Road - Maintain existing alignment.

5. Provide a connection between Doolan Canyon Road and Collier Canyon Road. The City shall work with Contra Costa County, if necessary to implement this alignment.

6. Croak Road and Fallon Road shall not be extended north.

Bicycle, Pedestrian and Equestrian Circulation

7. A plan for a bicycle, pedestrian and equestrian path system which provides connections to all neighborhoods, community facilities, parks, open space areas, the Community Center, employment centers and BART shall be prepared by the City in cooperation with the LARPD and shall be implemented by the appropriate agency.

8. Development of a bicycle, pedestrian and equestrian path system shall be coordinated with and connected to proposed and existing path systems outside of the planning area. Implementation of the path systems shall be coordinated among the City of Livermore, LARPD, the cities of Dublin and Pleasanton, the East Bay Regional Park District and other appropriate agencies.

Airport Land Use Planning Area

9. To protect the Municipal Airport from encroachment by incompatible uses the City shall ensure appropriate development within the immediate vicinity of the airport which meets noise standards and flight clearance requirements.

10. In the North Livermore Area, only business park, commercial, Las Positas College and open space uses shall be encouraged within one mile of the Municipal Airport. Residential uses within this area are not permitted and are not designated on the Preferred Plan.

Local Transit

11. Coordinate future development within the Planning Area with LAVTA to ensure efficient and convenient transit service.

12. Where appropriate, preserve options for future transit use when designing improvements for roadways.

13. Take necessary measures to provide for long-term extension of direct BART service to Livermore, including reservation of adequate

corridors along the proposed BART alignment, reservation of adequate acreages at proposed BART station locations, and establishment of complementary land use policies for the corridor and station areas.

14. Cooperate with Alameda County in their preparation of a countywide transportation plan including the designation of a LRT system to Livermore.

F. PARKS AND RECREATION

In addition to community and regional proposed open space, the plan suggests adding neighborhood and community parks which offer both active and passive recreation opportunities. Total open space will more than adequately cover the minimum 300 acres required for the desired build-out population.

Community Parks

Community Parks, generally 30+ acres in size, are to be provided at a ratio of 2 acres per 1,000 population. Two to three community parks will be needed within the Planning Area for the potential population. The plan indicates the Community Center as one location for centrality and access. Direct linkages with, or inclusion within the Cayetano Creek Open Space Corridor are desirable. Sport fields, court games and playgrounds as well as areas for picnicking and informal recreation will be included. The location of at least one other community park will be determined with future Specific Plans.

Neighborhood Parks

Approximately 6-10 acres in size, these parks may contain limited sport fields and court games. Up to 12 neighborhood parks within the North Livermore area will be needed (2 acres per 1,000 population). The location of neighborhood parks will be determined in future planning studies.

Sports Park

A separate sports park facility is recommended within the plan area for active recreation and organized sports teams and events. It could be located adjacent to Las Positas College and/or the Community Center.

Cayetano Creek Open Space Corridor

The central open space feature in the valley area of the plan is the Cayetano Creek Open Space Corridor. Traversing the study area from north to south, this minimum 500 foot wide corridor is envisioned as a linear public park system which significantly enhances the existing riparian habitat and includes a number of small pocket parks and recreation facilities for public use. Utilizing and expanding upon the 100-year flood plain, the corridor will link County open space lands with residential neighborhoods, Community Center, and commercial/institutional uses.

Bird's Beak Habitat Preserve

Although not located within the Planning Area, the alkali sink wetlands habitat for Cordvlanthus Palmatus (palmate-bracted bird's beak), a rare and endangered plant species, is adjacent to the area. The Plan advocates the development of a habitat preserve and interpretive center within the wetlands area and a trail system to connect the preserve with other open space areas.

PARKS AND RECREATION POLICIES

1. **Provide a full range of public park, cultural, art and recreational facilities that are efficient, convenient to users, appropriately distributed throughout the Planning Area, and that reinforce the community identity.**

2. **Develop a coordinated park and recreation facility network which visually reinforces the character of the community and integrates unique historic and cultural resources, open space areas, and creeks and trails.**

3. **Coordinate with the Livermore Area Recreation and Park District in planning park and recreation facilities.**

4. **Encourage cooperation between the Livermore Area Recreation and Park District and the Livermore Valley Joint Unified School District toward joint recreation facilities development of use of schools sites whenever feasible.**

5. In the North Livermore Area, the one hundred year flood plain of Cayetano Creek shall be developed as a part of a linear public park. Recreational uses, including playfields, parking lots, bicycle/pedestrian/equestrian paths, golf courses and passive recreation areas should be considered appropriate for location within the flood plain right-of-way. Structures for recreational facilities should be located in pockets adjacent to the linear park, but outside the flood plain.

E. OPEN SPACE

A fundamental component necessary for the vitality and integrity associated with growth is an open space system. The plan envisions open space corridors in the valley and extensive acreage in the hillsides left free of development. Approximately 1,500 acres of open space are planned for the valley, not including small neighborhood parks. Additional open space will be provided within the hillside areas and also within the Scenic Corridor associated with I-580.

The central open space feature in the valley area of the plan is the Cayetano Creek Open Space Corridor. Traversing the study area from north to south, this minimum 500 foot wide corridor is envisioned as a linear public park system which significantly enhances the existing riparian habitat and includes a number of small pocket parks and recreation facilities for public use. Utilizing and

expanding upon the 100-year flood plain, the corridor will link County open space lands with residential neighborhoods, Community Center, and commercial/institutional uses.

Another proposed open space corridor would link the Springtown Area to the western hillsides via the Las Positas Arroyo and the hills fronting the I-580 interchange at North Livermore Avenue. Connections through to Las Positas College and Collier Canyon can be achieved by an overpass spanning the proposed Isabel Expressway. The width for this corridor will vary along the route.

One method of preserving designated open space areas, hillsides and stream corridors involves assigning density credit for these open space areas adjacent to lands designated for residential use. This density credit must be transferred from the designated open space areas to designated residential lands in the vicinity. The allowable density credit is determined by the adjacent residential designation and environmental considerations of transferring the density.

Within the hillsides, policies require the preservation of the ridgelines and avoidance of slopes over 30% and areas of geotechnical hazard. Open space within the hillsides would likely remain primarily in private control, however, the City should aggressively obtain access easements along ridgelines and in scenic canyons for trails and staging points. Protected ridge tops and areas not developable because of slope and geotechnical concerns will remain free of development.

The Contra Costa Water District is in the process of obtaining properties within the watershed for the proposed Los Vaqueros Reservoir project. Within the Planning Area, approximately 140 acres of watershed have been purchase along Vasco Road at the Contra Costa County boundary. This land will remain in open space use and additional watershed lands within the Planning Area will be obtained by the CCWD.

OPEN SPACE POLICIES

1. **Retain ridgelines and hillsides steeper than 30% as open space.**

2. **Preserve open space areas for the protection of public health and safety, the provision of recreational opportunities, and separation from neighboring communities.**

3. **Cooperate with Alameda County, Contra Costa County, Livermore Area Recreation and Park District, East Bay Regional Park District, and the City of Dublin to create a regional open space system for the planning area.**

4. **Provide a connected open space system between the areas of the City located north and south of I-580.**

5. **Preserve as open space areas of significant vegetation or prominent topographical features and locations where natural conditions provide a significant scenic viewpoint.**

6. Preserve as open space, whenever feasible, natural creek corridors and setbacks for flood control and habitat maintenance or enhancement.

7. Density credit is allowed for open space areas adjacent to lands designated for residential use. The allowable density credit is determined by the adjacent residential designation and environmental considerations of transferring the density.

H. PUBLIC FACILITIES

Residents in the North Livermore Area will require a variety of public facilities which are located in the Community Center and within the various plan area neighborhoods. As previously discussed, the Community Center could include a number of cultural and civic buildings, including a library, firehouse, post office, police station, public meeting space and a city hall annex. It could also include a high school.

PUBLIC FACILITIES AND SERVICES GOALS AND POLICIES

GOALS

1. In assuming management responsibilities for all urbanization occurring in the Livermore Planning Area, it is the goal of the City to provide the most efficient and financially sound system of urban services commensurate with the highest standards required to protect the health, safety and general welfare of all persons living and working in the Planning Area, both now and in the future.

2. It is the goal of the City to provide urban services through a phased program, ensuring the orderly implementation of policies and proposals of the General Plan, including the annexation of areas to be served and provisions for meeting the cost of such services.

3. It is the goal of the City that the expansion, maintenance and operation of central sewer and water systems serving all urban development within the Livermore Planning Area shall be under the jurisdiction of the City of Livermore.

4. It is the goal of the City to ensure that new residential growth shall not constitute a burden on the City in the form of increased taxes or costs to provide facilities and services.

GENERAL PUBLIC FACILITIES POLICY

Land use decisions shall be contingent upon the adequacy and availability of public facilities and services. Specific Plans prepared for the Planning Area shall include financing plans for the orderly development of public facilities and services.

Schools

The North Livermore Area's expected average population of 52,400 people will generate the need for additional public schools. The actual number of schools and specific sites should be determined in conjunction with the Livermore School District. While the Preferred Plan does not designate specific sites for schools, preliminary estimates indicated the need for up to 12 elementary schools, 4 junior high schools and two high schools.

SCHOOLS POLICIES

1. To help assure quality education, adequate classroom school space, and safe school access, the City shall closely coordinate its urban management function with the school facility planning function of the Livermore Valley Unified School District. More specifically, the City shall:

    a. Specific Plans prepared for the North Livermore Area shall address school facility needs and identify sites and financing mechanisms for the necessary schools.

    b. Encourage residential land developers to provide school facilities in conjunction with their development so that adequate classroom space is available when the new homes are occupied and assist the School District in finding other means of financing.

    c. Consider comments of the School District concerning availability of educational facilities prior to the approval of new residential development.

2. Elementary schools shall be located centrally to the student populations they will serve. Sites shall serve areas bounded by major streets so that children do not have to cross such streets to get to school.

3. Intermediate and high schools should be located centrally to the student populations they will serve. Sites shall have access to collector or major streets to permit access by pedestrians, bicycles and public transit with a minimal impact on surrounding residential areas.

4. In the North Livermore Area, a high school should be located in or near the Community Center.

5. The City shall continue to work with Las Positas College to implement their campus master plan and to plan for compatible uses adjacent to their campus, where feasible.

GOVERNMENT OFFICES POLICY

Consideration should be given to locating necessary government offices and fire station in the North Livermore Area Community Center.

FEDERAL COMMUNICATIONS COMMISSION FACILITY POLICY

The FCC Facility shall be designated as a non-conforming use within the North Livermore Area. The ultimate use of the site shall be residential development. As development or roadway improvement is proposed within one mile of the exiting FCC property, a Specific Plan shall be prepared which addresses:

- site reconfiguration (possibly achieved through land trades or partial use of the Bird's Beak Area) or relocation of the facility
- the need for buffer zones directly adjacent to the facility
- feasibility and design of roadways within and adjacent to the facility (including North Canyons Parkway).

SEMI-PUBLIC FACILITIES POLICY

The Livermore Pleasanton Rod and Gun Club shall be designated as a non-conforming use within the North Livermore Area. The ultimate use of the property shall be residential development. In the interim adjacent development shall provide buffers adequate to protect the public health and safety.

Domestic Water Systems

Water service is currently provided to the incorporated portion of the planning area by the City of Livermore which receives its water primarily from Zone 7 of the Alameda County Flood Control and Water Conservation District. Zone 7 receives its water supply from the State Water Project (SWP) and groundwater sources. The current water supply from SWP to Zone 7 is expected to meet the needs of the Livermore- Amador Valley through the mid- to late-1990s (or whenever the water consumer population reaches 150,000). The SWP is currently supplying 60 percent of the water volume that it is contracted to supply to Zone 7 by 1997. The full contracted 1997 quantity would be sufficient to serve 215,000 consumers; however, in order to meet the 1997 obligation, the SWP will need to expand its water supply sources by (1) reducing supply to other zones and/or (2) building additional state water projects or increasing groundwater extractions.

DOMESTIC WATER SYSTEMS POLICIES

1. The City shall coordinate the extension of domestic water systems, both public and private, with the phased program for the extension of all other urban services to ensure the most effective management controls over urban growth in support of General Plan policies and proposals.

2. Specific Plans prepared for the North Livermore Area shall address the feasibility, phasing, and financing of all domestic water system improvements.

3. Urban development shall be prohibited unless the City can find:

   a. That there exists an adequate domestic water supply. This shall be based on an approximate 1,150 gallons per day per single family residence peak water demand.

   b. That development will not result in a reduction of water quality below those standards set forth in laws and regulations relating to Domestic Water Supplies Quality and Monitoring as set forth in the California Health and Safety Code and the California Administration Code.

4. The City shall study and determine the feasibility of providing municipal water systems in conjunction with septic systems to rural areas in North Livermore.

Sewage Treatment

Anticipated urban growth in Livermore is expected to reach the limit of the City's allocation of regional sewage export capacity by the mid-1990s. Additional export capacity will be needed for Livermore at that time if additional urban growth is to be adequately served. The Tri-Valley Wastewater Authority has been evaluating various alternatives for increasing sewage export capacities from the Livermore-Amador Valley.

SEWAGE TREATMENT POLICIES

1. Urban growth shall occur only where sewage is treated prior to land disposal. Septic tanks shall be allowed only in agricultural and rural residential zones when approved by the appropriate agency, and consistent with the findings of a study of the feasibility of providing municipal water to rural areas with septic systems in North Livermore.

2. The City shall investigate alternative methods for municipal sewage treatment and disposal.

3. The City shall investigate methods and applications for water recycling or reclamation.

Fire Protection

As the Planning Area develops, urban fire protection will be provided by the Livermore Fire Department. Wildland fire protection is provide by the California Department of Forestry.

FIRE PROTECTION POLICIES

1. Specific Plans for the North Livermore Area shall consider the need for additional fire protection service, facilities and equipment, based on proposed residential and non-residential demand. The Specific Plans shall also identify appropriate financing mechanisms for funding these needs.

2. Guidelines shall be prepared for wildfire hazard reduction and fire protection services for the North Livermore Area hills. These guidelines shall be applied to all new development in the hills.

Police Protection

As the Livermore population grows, the Police Department will need to add officers, plus associated support and equipment, to maintain current service levels. (Targeted at approximately 1 officer per 1,000 population.)

POLICE PROTECTION POLICY

Specific Plans for the North Livermore Area shall consider the need for additional police protection service, facilities and equipment, based on proposed residential and non-residential demand. The Specific Plans shall also identify appropriate financing mechanisms for funding these needs.

I. VISUAL AND SCENIC RESOURCES

The existing visual quality of the planning area is dominated by wide expanses of undeveloped, sparsely vegetated open space. The three primary visual units within the planning area are its rolling hills, its valley grasslands and cropland, and its creeks and arroyos. Scattered man-made features in the landscape such as rural roads, fences, eucalyptus windrows, barns, and ranch complexes, add to the visual character of the area. As the valley area develops, the visual character will be changed from rural/agricultural to urban. The Preferred Plan advocates the preservation of the rural/agricultural character in the hillside areas.

The City has designated I-580, Doolan Road, Collier Canyon Road, the proposed North Canyons Parkway, and the north end of Vasco Road as scenic routes which warrant special land use and design controls along their visual corridors. The City specifically identifies the dimensions of the I-580 visual corridor as that area within 3,500 feet and visible from the roadway. Within this corridor, the General Plan states, "The City shall maintain in open space that portion of the hills which are seen from the freeway, I-580, and which are within the I-580 Scenic Corridor..."

The Livermore Urban Design Implementation Program sets forth design guidelines for residential, industrial and commercial development, and City entry points and streets. The goal of the Design Implementation Program is to promote the orderly and improved visual quality of the City as a whole.

VISUAL RESOURCES POLICIES

1. The City shall allow no structural development in hillside areas involving skylines, ridgelines, or silhouettes.

2. The City shall maintain in open space that portion of the hills which are seen from the freeway, I-580, and which are within the I-580 Scenic

Corridor as defined in the Scenic Element; any development within the Scenic Corridor is subject to conditions set forth in the Scenic Element. (Resolution No. 167-83)

3. The City shall permit no intensive development of the hills. Development including roads, buildings and other structural or land coverage, shall be located, sited and designed to fit and be subordinate to the natural landforms. Under no circumstances shall development create uniform, geometrically-terraced building sites which are contrary to the natural landforms, and which detract, obscure or negatively effect the visual quality of the landforms.

4. Development in woodland, grassland, or grassland/woodland areas will employ colors and materials which are in harmony with, rather than contrast with the vegetation cover of the site. (Resolution No. 167-83)

5. The City shall maintain an area of non-urbanized land surrounding Livermore to serve as a buffer between communities. Uses which are considered compatible with this are are agriculture, grazing, open space, recreation and reclaimed sand/gravel extraction.

6. Open space shall be used to protect and enhance local community character and identity, and to guide the physical shape and direction of urban growth to preserve the rural characteristics of the area.

7. Open space shall be used as a buffer between incompatible land uses within urban or essentially undeveloped areas.

8. The City shall protect and enhance public views within and from established scenic corridors, including the arroyos and development shall not be allowed to obscure, detract from, or negatively effect the quality of these views.

9. The City shall permit no development to wholly obstruct or significantly detract from views of any scenic area as viewed from a scenic corridor. (See the Scenic Element). Resolution No. 167- 83)

10. Development within the North Livermore Planning Area shall be consistent with the Livermore Urban Design Implementation Program.

J. ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL RESOURCES MANAGEMENT GOALS AND POLICIES

GOALS

1. It is the goal of the City of Livermore to preserve and enhance the quality of living and prevent the degradation of the natural environment.

2. It is the goal of the City to seek ways to promote efficient and effective combinations of public and private effort to attain resource conservation and open space management.

GENERAL POLICIES

1. The City shall take steps to offset the effects of environmental degradation which already have occurred, and seek an optimum balance between economic and social benefits to be derived from the Livermore Area's natural resources.

2. Where conflicts occur, the City shall reconcile differences in favor of the general public good and shall protect the environment.

Geologic Resources

The topography of the planning area varies from rolling hills and canyons in the west and northeast to relatively flat in the central Las Positas Valley portion. Elevations range from 510 to 1,300 feet.

Steeper slopes area located in the western hills and in the Altamont Hills. High slope (30% or more) constraints are present in approximately 18 percent of the planning area. Approximately 72 percent of the planning area has little or no slope constraints. Areas of low slope constraint are located primarily in the Las Positas Valley.

A substantial portion of the western hill area, and limited portions of other planning area hilly segments, contain known landslides. These landslides would require repair by qualified professionals before the could be safely built upon, and would also require special design precautions for development activity in their vicinity.

The Greenville Fault passes through the northeast corner of the planning area. Many other smaller known or suspected faults are located throughout the planning area. These faults may require special engineering analysis and related land use and design controls to ensure safe future urban development (roads, utilities, structures, etc.) in their proximity.

The planning area contains several different clay soils. These soils contain a variety of erosions characteristics as well as a range of fertility and workability conditions. Generally, however, their agricultural capabilities are limited to the growing of grain and grain hay or use as range or pasture.

GEOLOGIC RESOURCES POLICIES

1. The City shall retain as open space areas of unique geology important for scenic, scientific, educational, recreational or historical values.

2. The City shall carefully condition hillside development with respect to road design, grading, structural foundations, surface and subsoil

drainage, excavation, earthfills and other operations to avoid soil erosion, scarring of the natural landscape, obstruction of scenic vistas, and the loss of natural vegetation and wildlife habitat.

3. The City shall control site preparation procedures and construction phasing to reduce erosion and exposure of soils to the maximum extent possible.

4. The City shall prohibit construction on soils with "severe" and "very severe" erosion hazards unless it can be demonstrated that the project will not cause an increase in erosion or sedimentation.

5. The City shall carefully control development on soils with "moderate" to "high" shrink-swell potential as to site grading, foundation design and construction to avoid site and structural damage resulting from those soil conditions.

6. The City shall encourage the retention in open space as much land as possible for agriculture and viticulture and rangeland and grassland. (Resolution No. 167-83)

7. **Consistent with Land Use Policy 2 (e), the City shall investigate a program for development rights transfers in the North Livermore Area. A purpose of this program would be to "preserve, whenever possible, the open rural character of the hills."**

8. Urban development within earthquake fault zones and areas of high landslide susceptibility shall be carefully regulated. Open space shall be considered the most desirable use for these areas.

9. No structure proposed for human occupancy, shall be placed across the trace of any active fault within the Planning Area. The Greenville, Las Positas faults shall be assumed active and Livermore fault shall be assumed potentially active unless and until proven otherwise. Urban development within 600 feet of a fault, shall be approved only after an appropriate geologic investigation and submission of a report by an engineering geologist registered in the State of California proves development to be safe and demonstrates the hazard of surface displacement is low. (Resolution No. 307-80)

Air Quality

Air quality measurements taken in Livermore in 1987 indicate that the state and federal standards for carbon monoxide, nitrogen dioxide, sulfur dioxide, and total suspended particulates were not being exceeded. Standards for ozone levels have been periodically exceeded, however, despite improvements over the last several years.

While air pollutants generally come from motor vehicles, industrial plants, and construction activities, an estimated 92 percent of the region's air pollutants come from motor vehicle emissions. The Livermore Circulation Element Draft EIR, August 1988, estimates that traffic on local Livermore streets will increase by

200 to 260 percent between now and the year 2015 under the current General Plan growth management policies, with the variation depending largely on the quantity and character of future growth on the north side. Corresponding increases in the levels of air pollutants can be expected.

Mobile and non-mobile air pollutants from the following three sources affect air quality in the Livermore vicinity: (1) from the "sink effect" (the valley acts as a "sink" for air pollutants generated by Bay Area sources west of the Pleasanton Ridge); (2) from traffic along the I-580 corridor; and (3) from local urbanization and related traffic. Based on findings in the Circulation Element Draft EIR, it appears that I-580 may be a greater generator of Livermore area air pollution than local urbanization, and the "sink effect" may have an impact equal to or greater than the I-580 impact. The Circulation Element Draft EIR indicates that under the current 1.5 to 3.5 percent average annual population growth rate range set forth in the City's General Plan, the Livermore area share of regional air emissions by the year 2015 could be expected to exceed control thresholds set by the Bay Area Air Quality Management District.

AIR QUALITY POLICIES

1. The City shall attempt to increase the ratio of employment to population to protect, preserve and enhance the air resources within the Planning Area, and shall urge other agencies within the Livermore Amador Valley to do the same.

2. All elements of the circulation network for the North Livermore Area shall be designed to minimize air pollution impacts. Development proposals shall provide a complete bicycle/pedestrian path system which allows residents to travel throughout the area, a gridded pattern of arterial and collector streets which disperses traffic throughout an area, rather than concentrating traffic on a few direct routes, and implement the North Canyons Parkway which is designated as a parallel route to I-580.

3. The land use plan for the North Livermore Area should encourage pedestrian and bicycle connections to the new BART station. Employment opportunities and residential development should be located within walking distance of the station, if feasible.

4. The City shall work with BART to determine the feasibility of locating parking facilities north of I-580 for the proposed western Livermore station, on a site which is convenient to both employment opportunities and residential development. If such a location is feasible, it shall be addressed in the Specific Plan for that area.

Drainage and Water Quality

The planning area is drained by several north/south oriented creeks, including Cayetano Creek, Collier Canyon Creek, and Cottonwood Creek, which are tributaries to Arroyo Las Positas. The Alameda County Flood Control and Water Conservation District (Zone 7) requires that all new development construct or pay for improve-

ment needs which are adequate to serve the proposed development as well as assumed buildout of upstream development potentials.

Relatively small and narrow segments of various lower drainage reaches in the planning area are identified as flood-prone. The City allows development within such flood-prone lands if all safety and maintenance issues can be adequately addressed.

Valley groundwater is the planning area has varying, but generally poor quality due to mineralization. The quality of the water in the Altamont Creek is also very poor due to mineral deposits in the Altamont Hills.

DRAINAGE AND WATER QUALITY POLICIES

1. The City shall use the arroyos, creeks, floodplains, Zone 7 rights-of-way and the South Bay Aqueduct wherever possible as components of the recreation trailways system, including development of pedestrian, bicycle and equestrian trails along their alignments.

2. Cayetano Creek, in the North Livermore Area, shall be developed as a linear park system. This park should be designed to protect the 100-year flood plain, enhance the riparian habitat and provide recreational amenities for the community. Minimum stream course right-of-way of 500' is proposed for these objectives. The Cayetano Creek Open Space Corridor shall be planned in conjunction with a Specific Plan for the Community Center, it shall be developed by the City and LARPD, and funded by North Livermore Area development.

3. To the greatest extent possible, arroyos and creeks shall be preserved in their natural state and flood plains shall be required and maintained as an alternate to reconstructing channels to accommodate flood flows.

4. All creeks in the North Livermore Area shall be enhanced with vegetation and shall utilize the existing stream channel, to the greatest extent feasible. Relocation and channelization of the existing stream channel shall be strongly discouraged. Bicycle/pedestrian/equestrian paths should be developed adjacent to these creeks.

5. The City shall take all necessary measures to regulate runoff from urban uses to protect the quality of surface and groundwaters and other resources from detrimental conditions.

6. Storm water runoff flows shall be maintained to the Bird's Beak area through the construction of storm drainage systems and/or other techniques in the applicable watersheds which direct urban runoff to the habitat area.

7. The City shall permit lands which are prone to flooding, as determined by the Federal Flood Insurance Administration, to develop in accordance with the General Plan if mitigation measures will assure that the proposed development will not create any of the following:

a. danger to life and property due to increased flood heights or velocities caused by excavation, fill, roads and intended use;

b. problem of access to the property for emergency vehicles in times of flood;

c. safety hazard due to the expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site;

d. problem of excessive costs in providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

8. In the North Livermore Area, the one hundred year flood plain of Cayetano Creek shall be developed as a part of a linear public park. Recreational uses, including playfields, parking lots, bicycle/pedestrian/equestrian paths, golf courses and passive recreation areas should be considered appropriate for location within the floodplain right- of-way. Structures for recreational facilities should be located in pockets adjacent to the linear park, but outside the floodplain.

9. In the North Livermore Area, all flood prone areas should be protected from flooding or protected as open space areas and in conjunction with construction of adjacent development or flood control improvements. Bicycle/pedestrian paths shall be provided.

10. Within flood prone areas only uses which have low flood damage potential and do not threaten other lands during times of flood shall be permitted.

Vegetation and Wildlife Resources

The biotic community of the planning area has changed substantially over past decades primarily due to heavy grazing and to a lesser extent to cultivation. The dominant vegetation has changed over the years from perennial to annual grasses. The area also contains significantly less woody and riparian vegetation than do other inner coast range locations. Wildlife habitats include grasslands, savannah, aquatic, and agricultural. Several large colonies of Bird's Beak, an endangered wetland plant species, have been identified south of Raymond Road. Endangered animal species which may inhabit the area include the San Joaquin kit fox, tiger salamander and Alameda whipsnake.

VEGETATION AND WILDLIFE RESOURCES POLICIES

1. New development in the North Livermore Area shall be required to submit biological wildlife and vegetation surveys which document evidence of any rare or endangered species, prior to approval of the development application.

2. Habitats of rare or endangered species shall be preserved. Proposed development in such areas shall demonstrate a high degree of compatibility with, and minimal adverse impact on, these habitats. If necessary, these habitats shall be preserved in contiguous areas which may cross property boundaries.

3. **The City shall work with the U.S. Department of Fish and Game, California State Department of Fish and Wildlife, property owners and other applicable agencies to determine the most appropriate manner of preserving the Bird's Beak habitat. Feasibility of using the site for a public education facility, public access and/or a portion of the FCC station, should be determined.**

4. Areas shall not be developed which are subject to fire hazard or for which elimination of such hazards would require: (1) major modification of existing land forms; (2) significant removal of, or potential damage to, established trees and other vegetation; and (3) exposure of slopes which cannot be suitably revegetated.

5. **Guidelines shall prepared for wildfire hazard reduction in site planning and site landscaping for the North Livermore Area hills. These guidelines shall be applied to all new development in the hills.**

Archaeological and Historical Resources

The planning area contains one recorded prehistoric archaeological site and three identified (but not recorded) historic archaeological sites. In addition, based on findings of recent surveys of lands near the planning area, and the findings of a study completed for the eastern portion of the planning area, there is a strong possibility that additional historic and cultural resources are located within the planning area.

ARCHAEOLOGICAL AND HISTORICAL RESOURCES POLICIES

1. Whenever there is evidence of an archaeological site within a proposed project area, an archaeological survey by qualified professionals shall be required as a part of the environmental assessment process.

2. If an archaeological site is discovered during construction, all work in the immediate vicinity shall be suspended pending site investigation by qualified professionals. If, in the opinion of a qualified professional the site will yield new information or important verification of previous findings; the sites shall not be destroyed.

3. The City shall encourage, and when possible, require the preservation of places, sites, areas, buildings, structures, and works of man which have cultural, archaeological, or historical significance or other special distinction to the community.

K. POPULATION-ECONOMIC

The California Department of Finance estimates in January 1989 show a population of 56,800 in the City of Livermore. Assuming a 3.5% annual population growth rate, Livermore's population in 2010 would be about 118,000 persons. Anticipated population within the Tri-Valley area (assuming a population growth of 3.5% for Livermore) would be 255,000 persons by 2010, with about 46% of the population in Livermore.

Housing and employment figures from the Association of Bay Area Governments (ABAG) and other sources indicate that there is both an existing and a projected shortage of housing in relation to employment in the Tri-Valley area, a conditions which directly influences the level of peak-hour commute traffic in and out of the subregion. These figures indicate that there is a current (1987) housing shortfall of 10,000 to 20,000 homes in the Tri-Valley area, and that the Livermore share of this current shortfall is between 1,300 and 2,600 homes.

Recent ABAG projections also indicate that, to maintain a reasonable "housing-jobs balance," an additional 60,000 to 70,000 homes would be needed in the Tri-Valley region by the year 2005. The Livermore share of that 1985-2005 need would be approximately 15,000 to 16,000 homes.

ABAG projected employment growth in the Livermore area could be accommodated within the existing General Plan inventory of industrial land. The City's ability to increase the local capture rate for projected regional industrial job growth would depend largely on the competitiveness of the planning area, i.e., the relative attractiveness of the planning area in comparison to other Bay Area employment centers. Attraction factors include convenience to affordable housing, adequacy of freeway access, the range of parcel sizes, infrastructure provisions, freeway visibility, physical development suitabilities, local development review processes, current nearby development activity, and land costs.

The demand for future neighborhood and community commercial development in the planning area will be directly linked to the rate of home construction. Future City policies with regard to the rate, extent, and character of north area residential development will determine the quantity of neighborhood convenience and community retail space provided. The current City General Plan indicates that the ratio of commercial acreage (retail and office) to population in Livermore is 5.4 acres per 1,000 population.

Assuming a similar ratio, an additional residential growth increment (beyond current General Plan designations) by 2005 would generate demands for over 200 acres of additional commercial development.

GOALS FOR URBAN GROWTH

1. It is the goal and overriding responsibility of the City to promulgate policies and programs which will result in the management of growth in such a manner as will best serve the health, safety and general welfare of its residents. Neither growth for its own sake nor restrictions

upon growth unrelated to this overriding responsibility is included in the meaning of this goal.

2. It is the goal of the City that the management of community growth will assure that the natural amenities and environmental qualities which are presently enjoyed and are among its greatest assets, can be successfully improved, preserved, and enhanced.

3. It is the goal of the City to achieve a balanced relationship between residential development and commercial and industrial development to provide local employment and to realize an adequate tax base.

POPULATION GROWTH POLICIES

1. It is the overriding policy of the City that future growth shall not exceed the community's capability to provide services. In particular, school classroom facilities, sewerage treatment capacity, treated domestic water, public parks and recreation, and public safety services shall be the principal factors considered. It shall be the continuing responsibility of the City to monitor these factors to assure compliance with the goals and policies of the Plan.

2. It shall be the residential growth policy of the City to plan for an average residential population growth rate of between one and one-half percent and three and one-half percent (1 1/2 - 3 1/2%) of the then present population in a calendar year. The computation of the one and one-half percent to three and one-half percent (1 1/2% - 3 1/2%) growth rate shall not include small projects of ten (10) units or less. (Refer to the Existing General Plan for a full discussion of the growth rate policy.)

ECONOMIC DEVELOPMENT POLICIES

1. To rehabilitate the Valley environment by minimizing commuting, the City shall work toward achieving a more "balanced" economy by attracting greater diversification of employment opportunities, particularly those which can use the local labor force.

2. To minimize the exodus of young adults, the City shall encourage development of college facilities and the expansion of job opportunities.

3. To strengthen the economic base and to avoid the duplication of cost in delivery of urban services, the City shall unconditionally support the fundamental principle of sound urban management that "What is urban should be municipal". Therefore, all future urbanization within the Planning Area (including the North Livermore Area), shall be within the municipal control of the City of Livermore.

V. IMPLEMENTATION

The following potential implementation and financing techniques will be examined more fully in later phases but are briefly described here.

IMPLEMENTATION TECHNIQUES

Zoning Ordinance

Zoning is the primary instrument for implementing the general plan. The local ordinance, the Livermore Zoning Ordinance, regulates land use by dividing the community into districts or "zones" and specifying the uses which are to be permitted and/or prohibited within each zone. Land uses of compatible intensity are grouped together and obnoxious or hazardous uses are usually separated from residential areas. A text and map(s) describe the distribution and intensity of land uses in such categories as residential, commercial and industrial. Written regulations establish standards for minimum lot size, building height and setback limits, fence heights, parking and other development parameters within each land use zone.

Subdivision Ordinance

Subdivision regulation, like zoning, is an exercise of police power and a principal instrument for implementing the general plan. The State Subdivision Map Act (Government Code Sections 66410 et seq.) establishes statewide uniformity in local subdivision procedures, but generally leaves the standards for regulating the design and improvement of subdivisions to the local government.

Livermore Urban Design Implementation Program

The Livermore Urban Design Implementation Program sets forth design guidelines for four major categories: industrial, residential, and commercial development, and City entry points and streets. Goals and areas of concern are presented for each category, and specific standards and guidelines for site planning, building design, landscape design, sign design, and lighting design are included.

Development Agreements

A city or county participating in a development agreement promises, or a specified time period, not to change certain rules, regulations and policies applicable to a development. The idea is to give developers, who have yet to attain a vested right to develop, a degree of assurance that their investment in project preparations will not be nullified by some future local policy or regulation change (e.g., the rezoning of a commercial project site to residential). In exchange for the privilege of a regulation "freeze," the developer may be willing to agree to certain concessions. For example, a carrying out an agreement project, the developer might provide extra affordable housing, open space or public facilities.

Transfer of Development Rights

The transfer of development rights concept is essentially a system that identifies the potential development density in an area to be preserved, severs this potential density from the land, and encourages its transfer to a receiver site by permitting higher density development, if the developer has purchased sufficient potential development density from the preservation area. Under this system, the development density of the preservation area is transferred to other areas which can accommodate the higher densities without causing significant environmental impacts, creating incompatible land uses, or putting heavy strains upon the existing infrastructure. The system results in the preservation of lands with high resource value while at the same time providing the owners of these lands with some compensation for the restriction.

Specific Plans

A Specific Plan is an implementation technique which provides a set of guidelines for development and design of certain sub-areas within the study area as well as a strategy for financing public capital improvements. Under Government Code 65455, a Specific Plan is allowed to supercede the Zoning Code but is generally used to coordinate the zoning and permitting process in order to ensure an orderly and timely development of an area. All development proposals would be subject to planning review.

FINANCING TECHNIQUES

Mello-Roos Financing

The Mello-Roos Community Facilities District Act of 1982 (Section 53311 et seq. California Government Code) permits the establishment of special districts to fund a wide range of public improvements, virtually all that can be conceived for the study area including maintenance and operation of public facilities. Mello-Roos bonds are similar to assessment bonds in that both are secured by the value of the land. Typically both are issued so that the land value is at least three times the amount of the land. The bonds can be marketed at lower ratios but would then be regarded as less secure and therefore require interest at somewhat higher rates.

Mello-Roos bonds are relatively new. Most of the approximately 50 bonds issues since 1983 have taken place in developing areas where eligible voters were a small number of property owners. A Mello-Roos District may provide for the planning, design, purchase, construction, expansion or rehabilitation of any real or other tangible property with an estimated life of at least five years. Examples of facilities include but are not limited to: parks; schools; libraries; and any other governmental facilities which the city council is authorized to contribute revenue to, construct, own or operate. A Mello-Roos District may also provide the following services: police protection; fire protection and suppression; ambulance and paramedic services; recreation program services; library services; and flood and storm protection.

Special Assessment Districts

An Assessment District formation allows for the provision of a wide array of improvements and the levying of assessments based on benefit to landowners in the designated area. Improvements include street paving, sidewalks, curbs and gutters, sewer and water services, storm drainage systems, street lighting, landscaping, and gas and electric services. A district can be established by the City at the request of the property owners, but a protest from a majority of the landowners can halt further consideration for a year unless overruled by a 4/5 majority of the City Council for reasons of public health and safety.

Revenue Bonds

Revenue bonds are used to finance facilities which generate a steady, dependable stream of revenue. Examples include bonds issued pursuant to the 1933 and 1941 Revenue Bond Acts. In general, these bonds are secured solely by revenues from Enterprise Funds and require "coverage" ratios of 1.15 to 1.25 times the annual debt service, plus a reserve fund.

The Sewer Revenue Bond Act of 1933 permits the issuance of bonds for sewer facilities. A public hearing is required but voter approval is not, unless 15 percent of either the property owners or the registered voters petition for an election.

The Revenue Bond Act of 1941 is used to finance public water and wastewater systems, parking facilities, garbage or refuse collection and disposal facilities, public airports, harbors, hospitals, golf courses, ferry systems and electrical energy projects. The bonds must be approved by a simple majority of those voting at a special election called for that purpose. Bonds issued under the 1941 Act may not be discounted more than six percent of par.

Parking Authority

If public parking facilities were found to be required as part of future development of North Livermore, a parking authority could be created under State statutes which would be able to fund land acquisition and facility construction through parking fees, assessments or other financing mechanisms.

Capital Improvement Programs

The network of publicly owned facilities, such as roads, streets, water and sewer facilities, public buildings, and parks, form the internal framework of a community. The timing and pattern of installing capital improvements will play a part in the implementation of the general plan by impacting the distribution of land uses. In lieu of considering individual projects or only those projects to be undertaken in a single year, most cities and counties prepare and annually revise capital improvement programs (CIPs) which cover a four to seven year period (five years in Livermore). The CIP projects annual expenditures for acquisitions, construction, rehabilitation, and replacement of public buildings and facilities such as sewer and water, street improvements, street lights, traffic signals, parks, police and fire facilities, and other public buildings.

Development Fees/Exactions

Fees and exactions involve direct charges for dedications collected on a one-time basis for a service provided or as a condition of approval being granted by the local government. The purpose of the fee or exaction must directly relate to the need created by the development. In addition, its amount must be proportional to the cost of the service or improvement. Development fees currently required by the City of Livermore include fees for park and recreation development, traffic mitigation and in-lieu low income housing.

Landscaping, Lighting and Tree Planting Acts

The Landscaping and Lighting Act of 1972 enables local governments to create special assessment districts to install, construct, maintain, and service landscaping and lighting improvements in "public places". This can include public lights and wiring, landscaping, statuary, fountains, other ornamental structures, and any other facilities which are "necessary and convenient for the maintenance or servicing thereof," including curbs, gutters, walls, sidewalks, paving, water, irrigation, drainage, or electrical facilities. The improvements may be owned by the city, another public agency, or a public utility.

There are also three major laws that authorize the use of assessments to pay for street lighting systems. These are the Street Lighting Act of 1919, the Municipal Lighting Maintenance District Act of 1927 and the Street Lighting Act of 1931. The 1919 Act allows installation of new lighting systems if the lights are to be owned by a public utility. The other acts only authorize operation and maintenance, although each has slightly different definitions of the terms. Assessments under the 1931 Act can only run for five years, then the assessment district must be recreated. The 1919 Act used to have that limitation, but it was changed to require only that the local government specify some future time when the district will end.

The Tree Planting Act of 1931 enables cities to install, maintain, and remove trees, shrubs, and other ornamental vegetation within a city's parks and along its streets, and to pay for the work through special assessments. Maintenance includes "clipping, spraying, fertilizing, irrigation, cropping, treating for disease or injury, and other similar acts." Assessments under this act are limited to five years.

General Partnership

In order to facilitate implementation of the plan, an arrangement between all or most of the principal owners (present and future) could be made in the form of a general partnership. Improvements would be subject to the approval of the partners by votes representing ownership percentages or by whichever form they agree.

Limited Partnership

Under this arrangement, all or the majority of the owners could pool their resources and surrender direct control to a general managing partner again subject to a wide array of contractual control and procedures.

100 Year Flood Plain: An area associated with the streams and creeks in Livermore measured from the center of the normal channel flow to the extent of the area that would be inundated by flood waters (on the average) once every 100 years. This area can usually be identified by using existing flood data based on high water marks, experienced flood maps and aerial photographs.

Active Recreation: Type of recreation or activity which requires the use of organized play areas including, but not limited to, softball, baseball, football and soccer fields, tennis and basketball courts and various forms of children's play equipment.

Annexation: The addition, by the City, of unincorporated lands, usually adjacent to lands already within the existing boundaries, for the purposes of promoting comprehensive planning, increasing the City's tax base, achieving greater governmental efficiency, assuring orderly development and to plan adjacent rural fringe areas integrally with the City.

Archaeological Site: A specific site or defined area known and recorded as having, or thought to have, Native American or other cultural artifacts or remains having historic or cultural significance as determined by the State Office of Historic Preservation.

Bird's Beak Habitat Area: A 480+/- acre area in North Livermore, located south of Raymond Road, east of Lorraine Street, and north and west of existing residential development where an endangered plant species, Cordylanthus palmatus, commonly known as Bird's Beak, is known to exist. Because of protection status of this species, strict development limitations have been placed on this area.

Buffer Zone: An area of transition between two development areas, or between a development area and a non-development area. In most cases, a buffer zone is usually of specific width or topographic or vegetation configuration and is normally used to protect a preferred land use, such as residential, or a resource, such as a stream or riparian area. In North Livermore, buffer zones may be appropriate between industrial areas and residential areas, or around Las Positas College.

Business Park: A planned development which principal tenants or occupants are office or related uses and usually consisting of one or two story office, research and development or light manufacturing or assemblage. Business parks in the Bay Area are campus-like in their setting with ample landscaping and wide boulevards and streets separating the use areas. Bishop Ranch, in San Ramon, is an example of a business park consistent with the concept for the Livermore Area.

California Land Conservation Act: Also known as the Williamson Act, established in 1965, this act provides a program whereby cities and counties can support the preservation of agricultural land. The program entails a contract between the city and an owner of land whereby the land is taxed on the basis of use rather than market value. The land becomes subject to certain enforceable restrictions and certain conditions need to be met prior to this agreement.

Capital Improvement Program: A program of long-term (usually longer than 15 years) physical improvements funded by the City, not including repair and maintenance, replacement or purchasing new equipment. Improvements to major streets, parks, public buildings and utilities are considered capital improvements. Capital improvements in North Livermore would include those improvements that would serve the larger area.

Circulation: Usually referred to as the network of roads, streets, paths, bikeways, equestrian trails, urban trails or any other vehicle or pedestrian way that allows movement between places identified by the General Plan.

Collector Street: Collector streets are relatively low-speed, medium-capacity streets which collect and distribute local traffic moving between local and major streets. Collector streets provide for circulation between neighborhoods, and divert traffic from local streets.

Density Rights: In the context of the the North Livermore General Plan Amendment, density rights refer to the bundle of development rights, e.g. the number of residential units, that can be assigned to any one parcel of land. These rights are a marketable item, for sale to other persons or entities, similar to mineral rights.

Development Rights: (See Density Rights)

Drain Fields: The subsoil disposal area for domestic sewage. Soil porosity and the size and occupancy equivalency of the proposed dwelling unit, or units, can influence the design dimensions of the drain field. Also called leaching cesspool, subsoil disposal beds or sand filters.

Duet: A detached building designed for occupation as the residence of two families living independently of each other, with each family living area defined by separate fee title ownership.

Duplex: A detached structure under single ownership which is designed for occupation as the residence by two families living independently of each other.

Dwelling Unit: A building or a portion of a building designed for occupation as the residence of one family.

Environment: The combination of all external influences and conditions affecting life, development, and ultimate survival of an organism, including man.

Fire Hazard Zone: An area where, due to slope, fuel, weather, or other fire-related conditions, the potential loss of life and property from a fire necessitates special fire protection measures and planning before development occurs.

Freeway: Freeways are state-designated high-speed, high-capacity routes serving statewide and inter-regional circulation needs.

Garden Apartment: A type of residential development, ranging in density from 10 to 20 units per acre. Usually a two or three story structure, or set of structures, with landscaped open space and surface parking.

General Plan Amendment: A formal application to amend or change the City's existing General Plan. A comprehensive analysis of a specific area of the General Plan resulting in a request to revise all or a portion of the General Plan to reflect a land use or combination of land uses which are different than the approved General Plan. The City has established a specific set of procedures for amending the General Plan.

Goal: A statement of direction. A definition of "what" a plan for the City or an area of the City should be. Usually the most general statement guiding a particular process of change for an area. Objectives, policies and programs are secondary to goals.

Highway: Highways are state-designated, relatively high-speed, high-capacity routes serving needs for inter-regional through traffic movement and interconnection between countywide road system components.

Household: A single person or group of persons who live as a domestic unit. A household, or more than one household, can occupy a dwelling unit.

Infrastructure: The physical systems and services which support development and people, such as streets and highways, transit services, airports, water and sewer systems, and the like.

Intracounty Route: Intracounty routes are medium-speed, low-capacity rural roads on the City's urban fringe which are components of the sub-regional intercommunity road system.

Local Street: Local streets re low-speed, low-capacity minor streets that provide for circulation within neighborhoods, which direct access to abutting land uses.

Major Street: Major streets are local medium-speed, high-capacity routes for intracity, cross-town travel and local access to freeways, highways and the subregional road system via interchanges and signal controlled intersections.

Open Space: Open space means any land or water which is used for preservation of natural resources, promotion of outdoor recreation, the production of agriculture, or the protection of public health and safety.

Passive Recreation: Type of recreation which does not require the use of organized play areas, such as hiking, sight-seeing, walking, beach-combing, sitting and reading.

Planned Unit Development: An approach to development which provides flexibility in the land use and design regulation of uses, buildings, lot sizes, and open space, while assuring compliance with the General Plan.

Policy: A determined course of action created by the community decision-makers for the purpose of achieving a specific goal or objective. A policy statement includes a definition of the target goal or objective (what), a procedure for realizing the target goal or objective (how) and a definition of responsibility (who).

Public Facilities: Structures and buildings, such as community centers, clinics, educational institutions, fire and police office or stations, health care facilities, including structures housing offices related to functions or purposes that are established for or by the local governing body.

Receiver Zone: An area of the City specifically identified to receive units from the transfer of development rights. An area identified where increased density of development is consistent with the overall goals of the General Plan.

Ridgeline: The silhouette formed by a land mass when viewed against a background such as the sky or another land form. A line along the of a land form separating two watersheds. For Livermore, ridgelines should be analyzed from all reasonable visual vantage points and limit lines established.

Scenic Corridor: A strip of land adjacent to a linear element, such as a natural stream, creek or other hydrographic or topographic feature, or a man-made feature, such as a public roadway, identified and quantified for the primary purpose of preserving or enhancing a visual amenity, such as a view or vista. For example, the City has established a scenic corridor adjacent to Interstate 580.

Scenic Resources: Visual amenities, such as views or vistas, dominant tree forms or masses, water courses or water bodies, mountain ranges or other significant environmental characteristics that are considered to have visual value by the community.

Septic Fields: (See Drain Fields)

Silhouette: The profile or line of hills around Livermore as seen from any place in the community. The ridgeline of the area's landforms. (See Skylines)

Single-Family Detached: A residential unit, separate from other residential units, built on its own lot.

Site Plan: A site plan includes the selection of individual sites and building locations. Site plans involve and include an analysis of the existing environment, local planning constraints and the economic market place. Site plans include physical, economic, social and historic or cultural analysis.

Skylines: The highest points of any landform as viewed from a distance such as ridgelines. (See Silhouette)

Specific Plan: A planning document, defined by State Law, which includes a set of land use , density, transportation and open space standards which clarify the application of General Plan policies to a particular area.

Subregional Shopping Center: (Also known as a community shopping center.) A shopping facility which provides comparison goods including apparel, home furnishings and appliances, general merchandise and automobiles. Banks, professional services and recreational facilities may also be provided. A junior department store, variety store or discount department store is usually the principal tenant.

Townhouses: A single-family dwelling unit attached to other single-family units by a common wall. Historically referred to as a "row house", each townhouse has its own access and separate utility connections. Townhouses have no side yards, but usually have front and rear yards.

Transfer of Development Rights: A land use planning tool which detaches the approved development potential from a given parcel of land and allows the governing jurisdiction to shift these development rights to a different part of the City. Usually a transfer zone and a receiver zone are identified in advance during the planning process.

Urban Area: An area (in or adjacent to the City of Livermore) containing a relatively high concentration of persons and activities in a limited space. The North Livermore Area is currently defined as a rural area. The existing City of Livermore south of I-580 is an urban area.

Urban Services: The means of supplying water, sewerage, power, transportation, information, education, management or protection in or adjacent to an urbanized area. Considered to be part of the measurable quality of life of any community.

Watershed: The total area above a given point of a water course that contributes water to its flow; the entire region drained by a waterway or which drains into a lake or reservoir.

Williamson Act: (See California Land Conservation Act)

Zero Lot Line: A detached single-family unit distinguished by the location of one exterior wall on a side property line.

1990 Housing Implementation Program

City of Livermore

PROJECT REVIEW PROCEDURES

The City's General Plan establishes a residential growth management program which stipulates a growth rate range to be implemented by a Three Year Housing Implementation Program (HIP). This program contains two general levels of policies. The first are the City-wide policies or the First Level Review. This level specifies the types of units and/or the locations that are to be encouraged during the current three year period. The second level is the project specific policies or Second Level Review. These include design and architectural standards, project amenities, and public improvements.

OVERALL PROGRAM OUTLINE

For each three year period the City Council will adopt a Three Year Housing Implementation Program (HIP). In developing the program the City considers among other issues; infrastructure requirements and limitations as they relate to the sewer, water and street systems of the City, service requirements including schools, safety and administrative services, environmental impacts and constraints, the low and moderate housing needs of the City, and the current job growth rate in Livermore. The HIP program delineates:

1. the growth rate for the three year period
2. the type and/or the location of residential units to be targeted for development (First Level Review)
3. the project specific criteria that will be used to evaluate individual projects. (Second Level Review)

EXEMPTIONS

The City's General Plan exempts residential projects of 10 units or less from the growth management program. To qualify, the property being developed or subdivided must have been a lot of record as of January 1, 1980 and subsequent subdivision or development shall not have exceeded a total of 10 units. A maximum total of 10 units per parcel may be exempted from the process including any units that were built under the old 4 unit exemption. Exempt projects are processed under the procedures of the City's subdivision and/or zoning ordinances.

MINIMUM QUALIFICATIONS

Only projects that have the appropriate General Plan designation prior to the required submittal date will be eligible to participate in the allocation process. Starting with the 1991-1993 program, projects will be required to be within the City limits before they are allowed to

compete in the HIP. For the 1988-1990 programs, projects within the city limits will be given preference by using a Second Level Review criteria.

GROWTH RATE

A growth rate of 3.5% has been set for 1989 and 1990. This is an average of approximately 700 units a year. However, because of previous allocations, 487 units will be available for allocation in 1990. However, because units may be allocated from or transferred to the 1991-1993 program, the actual number units approved for the 1990 program may vary. Up to 501 units may be borrowed from the 1991-1993 program for a theoretical maximum of 988 units.

CITY WIDE POLICIES (First Level Review)

Targeted categories

The Housing Implementation Program (HIP) has the ability to target both geographic areas within the City and specific types of units that will be given preference for permit allocation. The program uses two general mechanisms to target the types and locations of desired housing for the three year period. The first is the "reserved category". In a "reserved category" only those housing projects meeting the category criteria would be considered. The second mechanism is the "emphasized category" which identifies selected housing types and/or locations. In an emphasized system, all types of projects will compete together for allocations, but those of emphasized housing types or locations will be given preference in allocating permits. These two systems may be used separately or together. Projects must propose a minimum of 80% of the targeted housing type to qualify for that category.

Geographic Areas: For the 1990 program, property within the College Avenue Annex Assessment District is targeted with a reserved category of 50 units a year. The assessment district must be formed before the first formal HIP Design Review meeting or the reserved category will terminate and the 50 units will be returned to the general category for allocation during the 1990 program. If all of the reserved units are not allocated in 1990, they will be transferred to the 1991 reserved category.

Also for the 1990 program, lands owned by public agencies or lands acquired from public agencies within the past 12 months are targeted with an emphasized category.

Unit Type: For the 1990 program "move up housing" is a targeted unit type using an emphasized category. Move Up Housing is generally defined as single family detached homes of not less than 1,900 square feet on

lots of not less than 7,500 square feet that will sell on average for more than $200,000.

Other First Level Review Criteria

In addition to the targeted categories, First Level Review also evaluates the impacts that the project would have on City services. In evaluating projects, the following items will be considered: Is this development located in an area which is consistent with orderly development (incremental extension of existing neighborhoods and required infrastructure) in the City? Does the necessary infrastructure capacity exist or can it be reasonably expanded in the proposed development area, including sewer and water capacity, transportation system capacity, and school capacity? Are there any obvious environmental constraints? Will the project substantially improve the surrounding neighborhood or area?

EVALUATION PROCEDURES

Custom Lot Evaluation

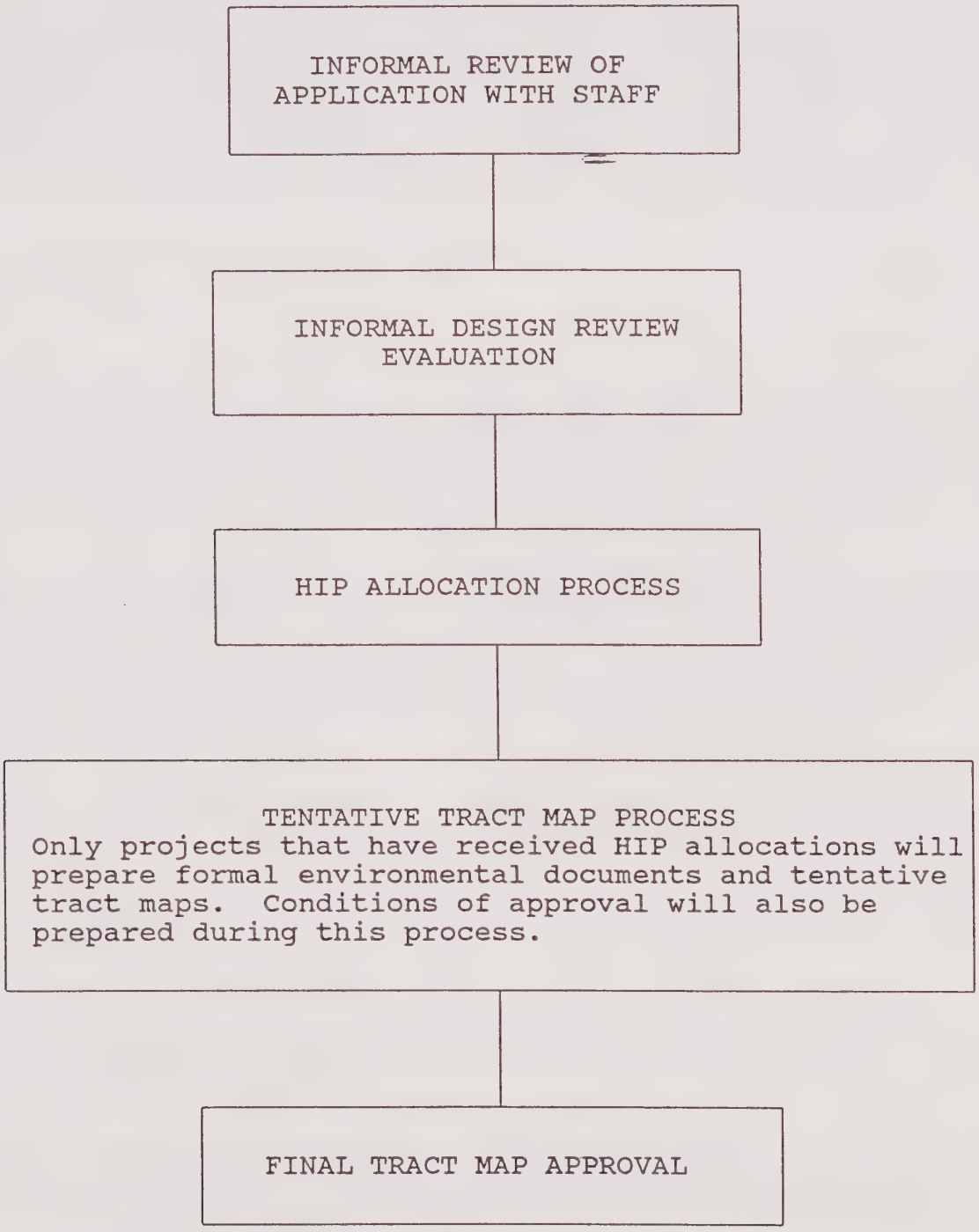
Custom Lots are defined as any subdivided lots which do not include the development of homes with the subdivision of the land. This type of subdivision is designed to encourage small scale developments of extraordinary quality owner built or custom built homes. It is not intended for large scale production builders.

For all custom lots, architectural guidelines will be required. These guidelines will be competitively evaluated in lieu of actual building plans and elevations. All other applicable criteria will be evaluated in the same manner as subdivisions which include the developed homes. In addition, design review evaluation will be required for all dwelling units built on those lots to ensure that they are consistent with the intent of the approved guidelines.

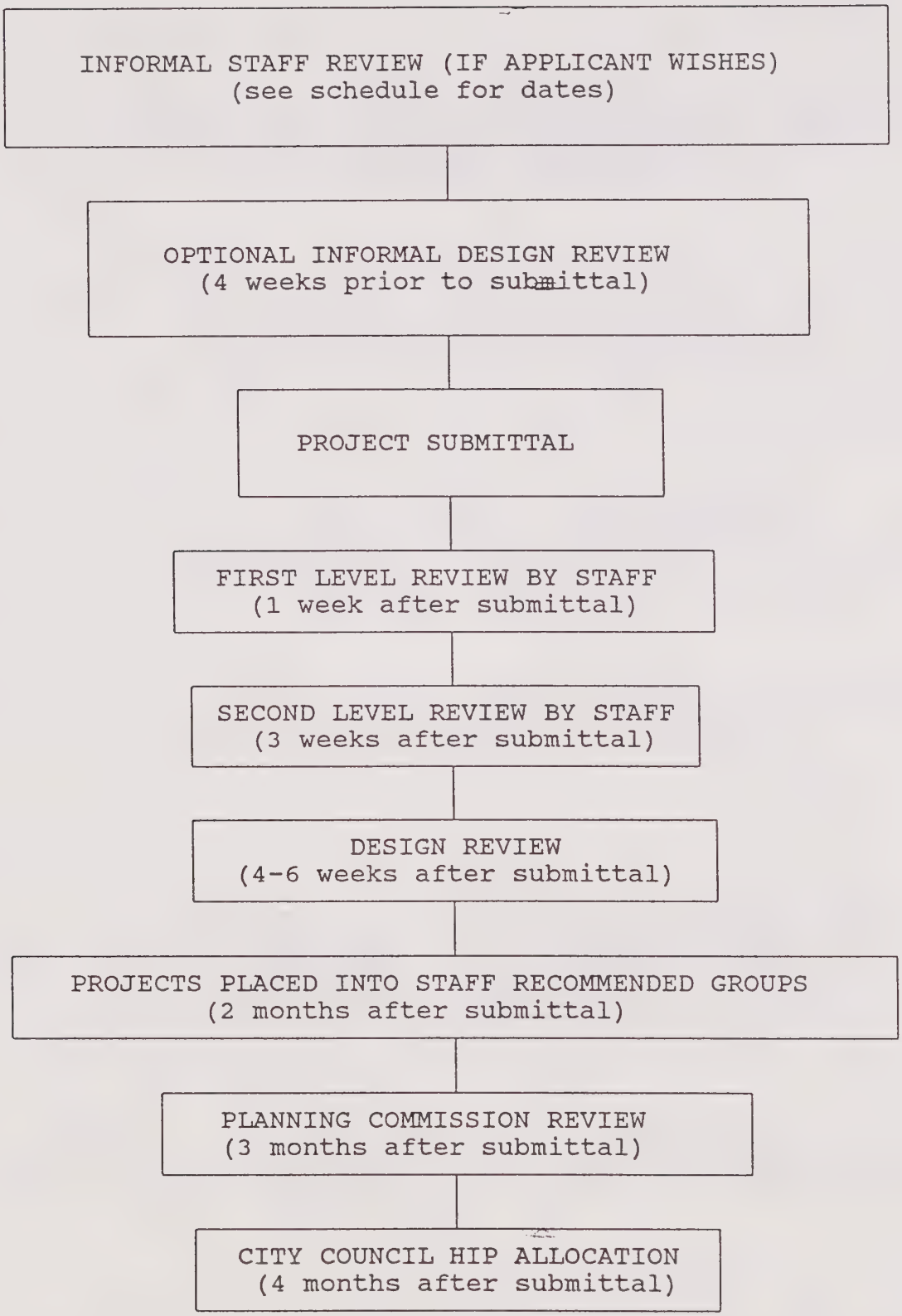
Custom lots will be eligible for inclusion in the "move up" housing emphasized category if they are 7,500 square feet or more.

HOUSING IMPLEMENTATION PROGRAM FLOWCHARTS

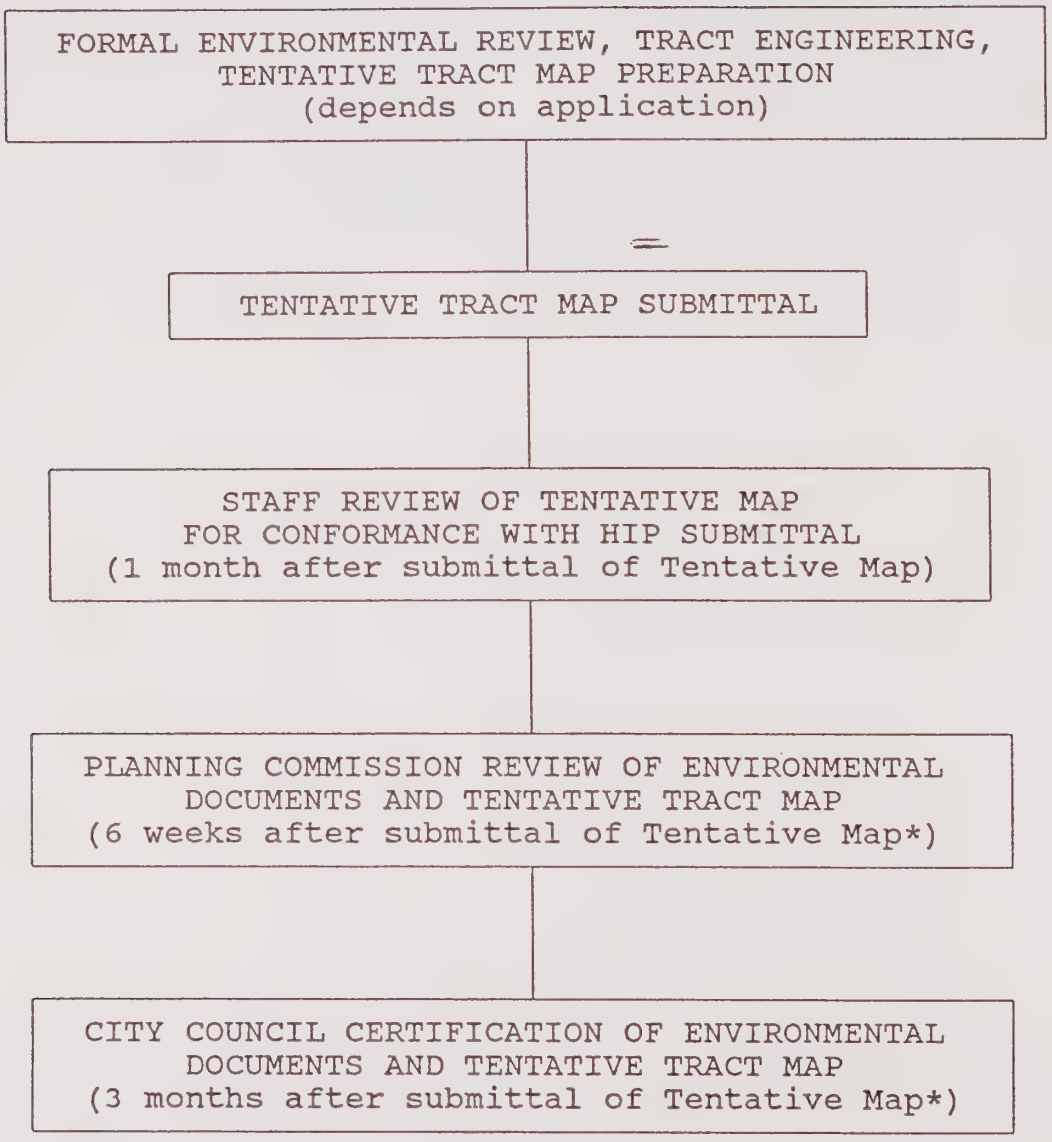
OVERALL PROCESS



HIP ALLOCATION PROCESS



TENTATIVE MAP PROCESS



* Depending on Environmental Review Requirements

PROJECT SPECIFIC CRITERIA (SECOND LEVEL REVIEW)

Individual criteria within projects will be evaluated against successful execution of the City's programs and policies for housing. These criteria depend on the particular attributes of the project including unit type and location. Evaluating projects against the City's goals and policies does not directly compare projects against each other. Therefore, it's possible for projects not meeting these criteria to not be granted allocations, regardless of the quality of the competing projects.

Once all of the project's individual criteria have been evaluated, an overall ranking is given to the project. Since project excellence is the goal, this process consists of evaluating the overall quality of a particular project, rather than simply adding up points or rankings in various areas. Therefore a project that is extraordinarily successful in just a few categories could be preferred over a project that has good but not extraordinary performance in a greater number of categories. These project rankings are then used to group the projects of overall similar quality together.

The result of this process will be several groups containing projects of similar quality. The first group will consist of Outstanding projects, the second group Very Good projects and so on. The projects will be considered by groups during the public hearings for the HIP process. Allocations will be given according to the allocation priority detailed on pages 9 and 10.

The following is the list of Project Specific Criteria that will be used to evaluate HIP projects.

DEVELOPMENT SITING

Does the project:

1. Protect natural features (topography, vegetation, historic structures)?
2. Avoid high risk areas? (steep slopes, geologic hazards, floodways, airport approaches, etc.)
3. Utilize the unique features of the site (views, arroyos, integration of significant existing vegetation)?
4. Minimize grading on hillside sites (using lower density, cluster housing patterns, street pattern, and building design)?
5. Provide design that enhances safety and security?
6. Provide side yard access?

Is the Project:

7. Compatible with existing surrounding neighborhoods? Does it minimize the negative impacts that the new development will have on the existing neighborhood?

STREET CIRCULATION AND LOT LAYOUT

1. Street pattern and circulation (including parking layout and pedestrian circulation in multi-family)
2. Integration into existing City street system
3. Pathways
4. Overall lot and dwelling unit layout including location of common facilities
5. Sensitivity to unique constraints of the site (noise, access)

PUBLIC AND PRIVATE OPEN SPACE

1. Quantity and quality of public open space / parks
2. Quantity and quality of private yard areas
3. Percentage of development that has visual or direct pedestrian access to open space

Does the project:

4. Include common facilities (swimming pool, spa, tennis courts, exercise room, etc.)?
5. Integrate open space into the development?
6. Link open space into the overall City open space system?

LANDSCAPING *

1. Distinctiveness of landscape architectural design
2. Compatibility with existing significant vegetation
3. Quantity, quality and size of landscape plant material to be installed
4. Contribution of landscaping to overall project design (integration of entry point landscaping, inclusion of front yard landscaping, utilization of a distinctive theme for a project)
5. Integration of landscaping with building size and bulk.

ARCHITECTURAL DESIGN QUALITY *

1. Distinctiveness of architectural design, style and details (on side and rear elevations as well as front)
2. Variety of design within an integrated design program
3. Relationships of building scales, types and styles
4. Quality and versatility of interior space layout
5. Sensitivity to scale and massing of structures
6. Conformance with residential design guidelines

SOLAR ACCESS AND ENERGY EFFICIENCY

1. Incorporation of energy efficient design features
2. Use of site design to maximize energy efficiency (including incorporation of passive and active solar design features, features to encourage use of summer breezes for cooling, and protection from summer sun)

CONTRIBUTION TO CITY FACILITIES

1. Contributions to and extensions of existing systems of pedestrian or bicycle paths
2. Contribution to and extensions of equestrian trails

INNOVATION

1. Inclusion of a unique or innovative solution within the design or integration of a feature that will distinguish the development from similar proposals

PROJECT LOCATION

1. Is the project within the City Limits?

* DENOTES CRITERIA THAT WILL BE EVALUATED BY THE DESIGN REVIEW COMMITTEE

ALLOCATION PRIORITY

1. Outstanding projects in reserved categories up to the maximum number allocated for those categories
2. Outstanding projects in emphasized categories not to exclude outstanding projects in non-emphasized categories.
3. Outstanding projects in non-emphasized categories
4. Very Good projects in reserved categories up to the maximum number allocated for those categories (if any allocations remain in the reserved category).
5. Very Good projects in emphasized categories not to exclude Very Good projects in non-emphasized categories.
6. Very Good projects in non-emphasized categories
7. Good projects in reserved categories (if any allocations remain in the reserved category).
8. Good projects in emphasized categories not to exclude Good projects in non-emphasized categories.
9. Good projects in non-emphasized categories

ALLOCATION PRIORITY MATRIX

	Reserved Projects	Emphasized Projects	Non-emphasized Projects
Outstanding Projects	1st Priority	2nd Priority*	3rd Priority*
Very Good Projects	4th Priority	5th Priority*	6th Priority*
Good Projects	7th Priority	8th Priority*	9th Priority*
Average Projects	**	**	**
Below Average Projects	**	**	**

* Not all emphasized projects in a particular quality range must be granted allocations before allocations are granted to non-emphasized projects in the same quality range.

** Average and Below Average projects would not normally receive any allocations even if units were left over after giving allocations to the 9th priority projects.

Samples of 1989 HIP staff evaluations are available for review at the Planning Department.

GENERAL POLICIES

1. A project approved for HIP allocation will be granted a schedule of permits over a period of years to ensure project completion. There is no yearly maximum; however, individual projects may be limited in the units allocated to the current Three Year Program and and one additional Program (a total of not more than six years). Future year allocations may be assigned up to a maximum growth rate of 1.5 for any future year not in the current Three Year Program (all of a current Program's allocations may be assigned in any one year if desired).

2. Once a Housing Implementation Program allocation is granted, minor amendments will be allowed only under unusual circumstances that the applicant could not have reasonably foreseen. In that case, the proposed change must clearly be an improvement over the approved project. Major amendments are not allowed and will require the project to compete for new allocations.

3. Joint applications that combine several property owners or developers into a single project are encouraged where the overall project would be stronger than the sum of the parts. In this case the combined development would be evaluated as a single project.

CITY OF LIVERMORE

1990 HIP SCHEDULE

DATE: December 19, 1988

TO: INTERESTED PARTIES

FROM: ROBERT BROWN, DIRECTOR OF PLANNING

December 20, 1988	1990 HIP information packets available
January 16, 1989 - March 10, 1989	Informal pre-submittal staff review
February 9, 1989	Preliminary Design Review submittal
February 16, 1989	Preliminary HIP Design Review meeting
March 17, 1989	Application deadline (for everything except Design Review Packet)
March 31, 1989	Application deadline for Design Review Packet
April, 1989	Staff review of applications
April 25, 1989	Design Review (Special meeting)
April 27, 1989	Design Review (Special meeting)
May 4, 1989	Design Review (Special meeting)
May 30, 1989	Planning Commission (Special meeting)
June 1, 1989	Planning Commission (Special meeting)
June 6, 1989	Planning Commission (Regular HIP and other items)
June 26, 1989	City Council (Regular Meeting, HIP projects only)
June 28, 1989	City Council (Special Meeting)
July 10, 1989	City Council (Regular Meeting, and other items)

CITY OF LIVERMORE

1990 HOUSING IMPLEMENTATION PROGRAM

SUBMITTAL REQUIREMENTS

Enclosed you will find the submittal requirements for the 1990 Housing Implementation Program. The formal submittal may be divided into two groups if the applicant so desires.

On or before March 17, 1989 the following completed documents shall be submitted:

I. INITIAL APPLICATION

1. Application form and questionnaire signed by owner (or copy of agent authorization if signed by applicant)

2. Site Plans
   - 18" by 24" — 2 copies (folded to 9" by 12")
   - 11" by 17" — 25 copies (folded to 8.5" by 11")

3. Other optional maps and exhibits (topography maps etc.)
   - 18" by 24" — 2 copies (folded to 9" by 12")
   - 11" by 17" — 1 copy (folded to 8.5" by 11")

4. Proposed Planned Unit Development standards (if applicable) (one copy)

5. Application Fees
   - $900 HIP fee
   - PUD application fee or Rezoning fee (if applicable)

On or before March 31, 1989 the following documents shall be submitted:

II. DESIGN REVIEW SUBMITTAL:

All drawings for the Design Review Committee shall be 18" by 24" and shall be reduced to a standard architectural or engineering scale. A scale bar should be used on reduced drawings.

The Design Review submittal shall include the following items:

1. Ten Design Review Packets. Each packet shall be bound and shall include one copy of the following documents:
   a. Site Plan
   b. Floor Plans with corresponding Building Elevations for each unit

c. Landscape plans

2. One bound set of 11" by 17" reductions of all plans and maps

3. One Color and Materials Board: (see exhibit requirements)

III. CITY COUNCIL AND PLANNING COMMISSION PACKETS

All drawings for the City Council and Planning Commission shall be 11" by 17" and shall be reduced to a standard architectural or engineering scale. A scale bar should be used on reduced drawings.

The submittal shall include the following items:

1. Twenty packets. Each packet shall be bound and shall include one copy of the following documents:
   a. Site Plan
   b. Floor Plans with corresponding Building Elevations for each unit
   c. Landscape plans
   d. Typical plot plan showing building footprints on the lots for a section of the project (if building footprints are not shown on Site Plan)

All exhibits must conform to the attached exhibit requirements.

OPTIONAL PRELIMINARY DESIGN REVIEW

If you desire informal feedback from the Design Review Committee, 8 copies of all preliminary Site Plans, Floor Plans and Elevations (or all plans that are available) should be submitted on or before February 9, 1989. The Committee will meet on February 16, 1989. All submittals to the Design Review Committee should be 18" by 24". This review is optional. Additional display materials may be brought to the meeting.

INFORMAL PRE-SUBMITTAL STAFF REVIEW

If you wish to have staff informally review your project, you should call Bob Brown or Dave Clemens to schedule an appointment with a planner between January 16 and March 10, 1989. Three days prior to the appointment please submit 2 copies of your preliminary plans so we can review them prior to your meeting. This review is optional.

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CITY OF LIVERMORE

1990 HOUSING IMPLEMENTATION PROGRAM

EXHIBIT REQUIREMENTS

1. DRAWING SIZE: Drawings shall be submitted in two sizes. The reduced drawings will be 11" by 17". Display drawings shall be 18 inches by 24 inches. All 18" by 24" drawings shall be drawn at a standard architectural or engineering scale. All 18" by 24" maps must be folded to 9 by 12 inch maximum size for submittal. All 11" by 17" drawings must be folded to 8.5" by 11" maximum size for submittal. Any exceptions to these requirements must be approved by the staff prior to the submittal dates.

2. REDUCED DRAWINGS: Review maps shall be 11 inches by 17 inches. The 11" by 17" map will be used by most reviewing agencies, the Planning Commission, and the City Council so they must be very clear and legible. These maps must include a bar scale so that dimensions can be clearly read at the reduced size. Since these maps will be used extensively during the selection process it is extremely important that the reductions be completely legible.

   On the 11" by 17" reduction, only the main image should be reduced. The reduction should be oriented to minimize the unused portions of the page. This may require the 11" by 17" reduced drawings to be laid out differently than the full size documents. All dimensions must remain legible on the reductions.

3. REQUIRED INFORMATION ON MAPS: Site plans shall be drawn to a standard engineering scale. Normally, site plans shall include lots with dimensions, streets, sidewalks, sound walls, existing significant vegetation, any parks or open space, and generalized contours if the site has an overall slope of over 5%. If the topography is complex and it deters from the presentation of the lot and street pattern, topography should be shown on a separate map with the lots lightly shown over the contours. A small table showing number of lots, number of acres, minimum lot size, maximum lot size, average lot size, acres of open space, etc. and a small vicinity map shall be shown on the full size site plan. Building footprints shall be shown on the site plan for small projects less than 20 units. For larger projects a typical plot plan showing building footprints on the lots for a section of the project (approximately 20 lots) should be included in the submittal in addition to the site plan. If a typical plan is required, it should be included with the City Council and Planning Commission submittal.

   Site plans for the HIP do not require much of the information that tentative tract maps do. Tentative tract maps are not

submitted until after a project has received HIP approval. Site plans should not include utility lines (water, sewer etc.) street sections, or construction details.

4. ORGANIZATION OF INFORMATION ON MAPS: Information on various maps and exhibits shall be combined where possible to reduce the number of documents that must be submitted. For example, elevations and floor plans should be combined so that all the information for a particular unit is on no more than two pages.

5. REQUIRED INFORMATION ON FLOOR PLANS AND ELEVATIONS: Floor plans and elevations shall be drawn to a standard scale. The scale shall be shown using a bar scale so that it may be read accurately on the 11" by 17" drawings. Construction drawings will not be accepted as substitutes for presentation plans and elevations. Therefore construction details (framing, electrical, plumbing etc.) and complete dimensions will not be accepted because they make the drawings more difficult to read. All information for a particular unit should be placed on a single sheet, if possible. A maximum of two pages per unit shall be used. Therefore, a floor plan, and various elevations for a single unit should all fit on one or two sheets.

6. COLORS AND MATERIALS BOARD: An example of all proposed building colors (including trim and roofing) shall be submitted mounted on an 8.5" by 11" rigid backing. A picture of all materials including roof, wall, and trim for all units shall be mounted on the same board, (or on a second board of the same size). The pictures should be taken at close range so that the texture of the materials can be clearly seen. Physical samples of actual materials do not need to be submitted. All materials and colors shall be clearly labeled (i.e. roof material plan 1, trim for elevation A of all plans, etc.). Several boards may be submitted only if the information will not fit on one board however the total number of boards should be kept to a minimum. The total thickness of the Colors and Materials board shall not exceed 1/4". Exceptions to these standards must be approved by staff prior to the submittal date.

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HISTORY AND OVERVIEW OF RESIDENTIAL DEVELOPMENT IN LIVERMORE

1959:

Up until about 1959, housing development in Livermore occurred by growth outward from the older City center. Growth was regulated by the City using conventional zoning and subdivision regulations. About this time Planned Unit Development (PUD) concepts were introduced to provide housing diversity.

The 1960's:

In the 1960s Livermore's rapid residential growth rate generated significant environmental problems for the City. This time period's annual average growth rate was in excess of 8 percent. During this time, many large single family subdivisions were processed and built. The concepts of density zoning and density transfer were introduced to encourage development flexibility. Near the end of the 1960's it became apparent that the rate of development was having an impact on the City's sewage handling capability, drinking water handling capability, and the local school system. Air quality problems also peaked in 1969.

The early 1970's:

Because of the City's inability to assure that additional dwelling could be provided with water, the City Council adopted an ordinance limiting the number of dwellings that could build pending expansion of water treatment facilities. Many of the local grammar schools were on double sessions and air quality continued to deteriorate. In 1972 the citizens of Livermore adopted a "save" initiative that prohibited additional residential development unless it could be established that there was adequate sewerage capacity, water supply and school facilities. Further, the Livermore Valley was declared a critical air basin in the early 1970's. Because of this designation, State and Federal funding for sewer needs was denied. To obtain grant funding to expand the sewer treatment plant, the City agreed to limit the growth rate as a mitigation measure.

1976:

In 1976, because of past growth problems, and the commitment for sewer funds, the City's General Plan was amended establishing a 2% growth rate. The 1976 General Plan introduced time phasing of development and control of the growth rate in order to encourage coordination between the extension of public services and the location of new development.

1978:

After the sewer treatment plant expansion, housing units were allocated out by the City at the rate of 2% per year. 1978 was the first year of such an allocation, with developers obtaining their shares of the allocation on a first come, first serve basis.

1979:

This was the first year the Residential Development Policy (RDP) was used to allocate housing units to residential developers on a system other than first come, first serve. The RDP was to be the City's major tool to implement the General Plan's residential growth policies. The RDP explicitly established the techniques to implement the General Plan's 2% growth Rate. The RDP also established a very involved project review process. This review process was necessary because by this time the City had to choose from many more development requests than were permitted by the 2% rate.

1980:

This year the RDP was amended to establish a special category for projects that contained affordable housing. The number of housing units within this category was limited to 150 dwellings. These units were a part of the 2% growth rate.

1981 & 1982:

The RDP was amended to establish a special category for custom lots. This category was limited to a total of 75 units for the 1981/1982 allocation. The allocation for both years was processed concurrently.

1983:

The RDP was amended to establish a special category for government subsidized housing projects. By General Plan Amendment, this category was not subject to the 2% limitations.

1984:

The RDP was amended to increase the number of units in the affordable category to 200. Replacement housing was established as a special category that was exempt from the 2% limitations.

1985:

In 1985 a major revision of the Residential Development Policy was adopted. This revision eliminated the special categories for affordable housing, for custom lots, and for government subsidized housing. Special categories were created for senior citizen housing and for housing in the redevelopment district. This policy was utilized for the approval of allocations for the years

from 1985 thru 1987. In 1985, a Housing Element of the General Plan was amended. The Housing Element identified several implementation programs to improve housing in Livermore, especially for obtaining non-single family types of units. The 1985 Housing Element also referred to the RDP as a major tool to help accomplish housing goals and objectives.

1987:

With increased applications, the RDP review process had proven difficult to administer by staff and by appointed and elected officials. A citizen committee concluded the RDP was considered too time consuming and produced questionable results. Consequently, the Council amended the General Plan to establish a growth rate that ranged between 1.5% and 3.5%, and established the concept of a Three Year Housing Implementation Program. The RDP was replaced by the Housing Implementation Program (HIP).

1988:

This is the first phase of the 1988 through 1990 implementation program. In 1988 a category was created to review the projects that had been started but not completed under the RDP. This review was to consider if the changes in development regulations would have a detrimental impact on the ability of those projects to be completed successfully under the HIP. The City established a 3.5% growth rate for 1988 but 1.5% of the permitted growth would be allocated to 1989 projects.

1989 & 1990:

This is the second phase of the program. The program permits the City to target specific unit types, and/or specific geographic locations for development. The growth rate for the second phase has been established at 3.5% per year. Move up housing has been established as an emphasized category for this phase. The implementation phase is pending.

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